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Running Genetic Algorithm...

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=== GENETIC ALGORITHM OPTIMIZATION ===

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[Initialization]

- Population size: 30

- Generations: 20

- Crossover rate: 80%

- Mutation rate: 20%

- Search space: 334 features

- Target: Minimize MSE using XGBoost

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=== OPTIMIZATION RESULTS ===

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▶ Best MSE achieved: 0.000688

▶ Time elapsed: 1127.08 seconds

▶ Features selected: 191/334 (42.8% reduction)

▶ Selected features:

1. AMT\_ANNUITY

2. AMT\_CREDIT

3. AMT\_GOODS\_PRICE

4. CODE\_GENDER

5. DAYS\_EMPLOYED

6. DEF\_30\_CNT\_SOCIAL\_CIRCLE

7. DEF\_60\_CNT\_SOCIAL\_CIRCLE

8. EXT\_SOURCE\_1

9. EXT\_SOURCE\_2

10. EXT\_SOURCE\_3

11. FLOORSMAX\_MEDI

12. FLOORSMAX\_MODE

13. FLOORSMIN\_MEDI

14. NAME\_CONTRACT\_TYPE

15. NAME\_EDUCATION\_TYPE

16. NAME\_FAMILY\_STATUS

17. NAME\_INCOME\_TYPE

18. OWN\_CAR\_AGE

19. REGION\_RATING\_CLIENT\_W\_CITY

20. SK\_ID\_CURR

21. YEARS\_BEGINEXPLUATATION\_AVG

22. Count\_bureau\_train\_csv\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

23. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

24. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

25. CountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

26. CountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225

27. CountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

28. Max\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5

29. Max\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

30. Max\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

31. Max\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

32. Max\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

33. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

34. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

35. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_

36. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175

37. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

38. Max\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

39. Max\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

40. Max\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

41. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_\_1897266

42. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

43. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

44. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active

45. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225

46. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_\_0\_5

47. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

48. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

49. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_\_0\_0675

50. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

51. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

52. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5

53. Mean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_

54. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

55. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

56. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

57. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

58. Median\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

59. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

60. Median\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

61. Median\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

62. Median\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

63. Min\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_

64. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

65. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225

66. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

67. Min\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

68. Min\_previous\_application\_train\_csv\_HOUR\_APPR\_PROCESS\_START\_

69. Min\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

70. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

71. Mode\_bureau\_train\_csv\_CREDIT\_TYPE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

72. Mode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

73. Mode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

74. StdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

75. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5

76. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_

77. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

78. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

79. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

80. StdDev\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_ATM\_CURRENT\_

81. StdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

82. StdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

83. Sum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

84. Sum\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_SK\_DPD\_\_\_\_0\_5

85. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

86. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

87. Sum\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

88. Sum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

89. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

90. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

91. Sum\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_ATM\_CURRENT\_\_where\_AMT\_INST\_MIN\_REGULARITY\_\_\_0\_0225

92. Sum\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

93. Sum\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

94. LabelPAMT\_ANNUITY

95. LabelPAMT\_GOODS\_PRICE

96. LabelPCODE\_GENDER

97. LabelPCount\_POS\_CASH\_balance\_train\_csv\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

98. LabelPCount\_POS\_CASH\_balance\_train\_csv\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

99. LabelPCount\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

100. LabelPCountDistinct\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

101. LabelPCountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

102. LabelPCountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225

103. LabelPCountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

104. LabelPCountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

105. LabelPDAYS\_EMPLOYED

106. LabelPEXT\_SOURCE\_1

107. LabelPEXT\_SOURCE\_2

108. LabelPFLAG\_DOCUMENT\_3

109. LabelPFLAG\_EMP\_PHONE

110. LabelPFLAG\_OWN\_CAR

111. LabelPFLOORSMAX\_MEDI

112. LabelPLIVINGAREA\_AVG

113. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5

114. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5

115. LabelPMax\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

116. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

117. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

118. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_0\_5

119. LabelPMax\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225

120. LabelPMax\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_CURRENT\_

121. LabelPMax\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_

122. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

123. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_SK\_ID\_PREV\_\_\_\_1897795\_5

124. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_

125. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

126. LabelPMax\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

127. LabelPMax\_previous\_application\_train\_csv\_CNT\_PAYMENT\_

128. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_\_1897266

129. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266

130. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active

131. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_\_0\_5

132. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

133. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_\_\_\_124731\_405

134. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_\_0\_0675

135. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

136. LabelPMean\_credit\_card\_balance\_train\_csv\_AMT\_CREDIT\_LIMIT\_ACTUAL\_\_where\_AMT\_BALANCE\_\_\_\_0\_0225

137. LabelPMean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5

138. LabelPMean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

139. LabelPMean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

140. LabelPMean\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

141. LabelPMean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_

142. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

143. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

144. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

145. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_

146. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

147. LabelPMedian\_credit\_card\_balance\_train\_csv\_AMT\_RECIVABLE\_\_where\_SK\_DPD\_DEF\_\_\_\_0\_5

148. LabelPMedian\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

149. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

150. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

151. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225

152. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

153. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit

154. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

155. LabelPMin\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_OTHER\_CURRENT\_

156. LabelPMin\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

157. LabelPMin\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

158. LabelPMode\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

159. LabelPMode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

160. LabelPMode\_bureau\_train\_csv\_CREDIT\_TYPE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

161. LabelPMode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

162. LabelPMode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

163. LabelPMode\_previous\_application\_train\_csv\_NAME\_SELLER\_INDUSTRY\_

164. LabelPNAME\_CONTRACT\_TYPE

165. LabelPOCCUPATION\_TYPE

166. LabelPORGANIZATION\_TYPE

167. LabelPOWN\_CAR\_AGE

168. LabelPREGION\_RATING\_CLIENT

169. LabelPREGION\_RATING\_CLIENT\_W\_CITY

170. LabelPREG\_CITY\_NOT\_LIVE\_CITY

171. LabelPREG\_CITY\_NOT\_WORK\_CITY

172. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

173. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_MONTHS\_BALANCE\_\_\_\_\_27\_5

174. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

175. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_

176. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

177. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

178. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

179. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

180. LabelPStdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

181. LabelPStdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_NUM\_INSTALMENT\_NUMBER\_\_\_8\_5

182. LabelPStdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

183. LabelPSum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

184. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

185. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

186. LabelPSum\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

187. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

188. LabelPSum\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

189. LabelPSum\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

190. LabelPSum\_installments\_payments\_train\_csv\_SK\_ID\_PREV\_\_where\_AMT\_INSTALMENT\_\_\_16549\_6725

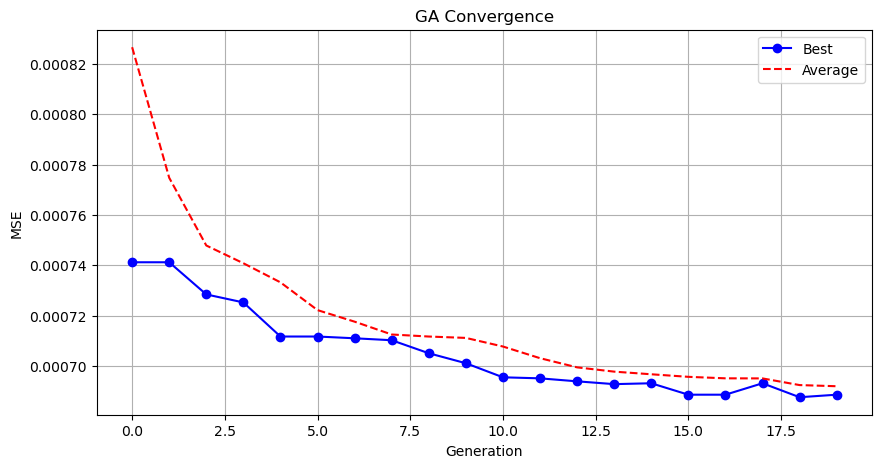
191. LabelPYEARS\_BEGINEXPLUATATION\_AVG

▶ Convergence progress:

- Initial MSE: 0.0007

- Final MSE: 0.0007

- Improvement: 7.1%



Genetic Algorithm completed successfully with MSE: 0.0007

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Running Particle Swarm Optimization...

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=== PARTICLE SWARM OPTIMIZATION ===

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[Initialization]

- Swarm size: 30 particles

- Iterations: 20

- Cognitive weight: 0.5

- Social weight: 0.5

- Inertia weight: 0.5

- Search space: 334 features

- Target: Minimize MSE using XGBoost

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=== OPTIMIZATION RESULTS ===

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▶ Best MSE achieved: 0.000751

▶ Time elapsed: 109.58 seconds

▶ Features selected: 161/334 (51.8% reduction)

▶ Selected features (with weights):

1. AMT\_ANNUITY (weight: 1.000)

2. AMT\_GOODS\_PRICE (weight: 0.652)

3. CODE\_GENDER (weight: 0.847)

4. DAYS\_BIRTH (weight: 0.609)

5. DAYS\_EMPLOYED (weight: 0.939)

6. EXT\_SOURCE\_1 (weight: 1.000)

7. EXT\_SOURCE\_3 (weight: 0.928)

8. FLAG\_EMP\_PHONE (weight: 0.880)

9. LIVINGAREA\_AVG (weight: 0.535)

10. NAME\_CONTRACT\_TYPE (weight: 0.848)

11. NAME\_FAMILY\_STATUS (weight: 1.000)

12. NAME\_INCOME\_TYPE (weight: 0.542)

13. OCCUPATION\_TYPE (weight: 1.000)

14. ORGANIZATION\_TYPE (weight: 0.689)

15. OWN\_CAR\_AGE (weight: 0.803)

16. REGION\_POPULATION\_RELATIVE (weight: 0.573)

17. REGION\_RATING\_CLIENT\_W\_CITY (weight: 0.851)

18. REG\_CITY\_NOT\_LIVE\_CITY (weight: 0.657)

19. Count\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.994)

20. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 0.604)

21. CountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5 (weight: 0.990)

22. CountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_ (weight: 0.578)

23. Max\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5 (weight: 0.630)

24. Max\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5 (weight: 0.733)

25. Max\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 1.000)

26. Max\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.951)

27. Max\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225 (weight: 0.915)

28. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.520)

29. Max\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225 (weight: 0.999)

30. Max\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_CURRENT\_ (weight: 0.702)

31. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_ (weight: 0.587)

32. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175 (weight: 1.000)

33. Max\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5 (weight: 0.675)

34. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_\_1897266 (weight: 1.000)

35. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266 (weight: 0.912)

36. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5 (weight: 0.883)

37. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 1.000)

38. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_\_0\_0675 (weight: 1.000)

39. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.635)

40. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 0.994)

41. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.612)

42. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025 (weight: 0.720)

43. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5 (weight: 0.905)

44. Mean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_ (weight: 0.760)

45. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.661)

46. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 0.871)

47. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.542)

48. Median\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225 (weight: 0.513)

49. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ (weight: 1.000)

50. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 1.000)

51. Median\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_ (weight: 0.555)

52. Median\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_1663\_5 (weight: 0.668)

53. Median\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45 (weight: 0.521)

54. Median\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_ (weight: 0.599)

55. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 1.000)

56. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 1.000)

57. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225 (weight: 0.779)

58. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 1.000)

59. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 1.000)

60. Min\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025 (weight: 0.772)

61. Min\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_ (weight: 0.609)

62. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1 (weight: 0.727)

63. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.762)

64. Mode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_ (weight: 0.552)

65. StdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5 (weight: 0.833)

66. StdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_ (weight: 1.000)

67. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5 (weight: 0.853)

68. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_CNT\_INSTALMENT\_\_\_24\_5 (weight: 0.658)

69. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_ (weight: 0.574)

70. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5 (weight: 0.531)

71. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.717)

72. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405 (weight: 0.699)

73. StdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28 (weight: 0.611)

74. StdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_ (weight: 0.578)

75. StdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_NUM\_INSTALMENT\_NUMBER\_\_\_8\_5 (weight: 0.701)

76. Sum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5 (weight: 0.847)

77. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.681)

78. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.500)

79. Sum\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_INSTALMENT\_in\_\_\_1654\_5\_\_\_821\_5\_ (weight: 0.582)

80. Sum\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45 (weight: 0.754)

81. LabelPAMT\_CREDIT (weight: 0.799)

82. LabelPAMT\_GOODS\_PRICE (weight: 0.682)

83. LabelPCount\_bureau\_train\_csv\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.861)

84. LabelPCount\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.536)

85. LabelPCount\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 1.000)

86. LabelPCount\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.753)

87. LabelPCountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225 (weight: 0.617)

88. LabelPCountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_ (weight: 0.512)

89. LabelPCountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_ (weight: 0.933)

90. LabelPDAYS\_BIRTH (weight: 0.605)

91. LabelPDEF\_30\_CNT\_SOCIAL\_CIRCLE (weight: 0.979)

92. LabelPEXT\_SOURCE\_1 (weight: 0.995)

93. LabelPEXT\_SOURCE\_2 (weight: 0.620)

94. LabelPFLOORSMAX\_MODE (weight: 0.979)

95. LabelPFLOORSMIN\_MEDI (weight: 0.914)

96. LabelPLIVINGAPARTMENTS\_MEDI (weight: 0.717)

97. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5 (weight: 0.632)

98. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5 (weight: 0.674)

99. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.879)

100. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.880)

101. LabelPMax\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225 (weight: 0.542)

102. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.753)

103. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 1.000)

104. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_0\_5 (weight: 0.692)

105. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_ (weight: 0.580)

106. LabelPMax\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_ (weight: 0.621)

107. LabelPMax\_previous\_application\_train\_csv\_CNT\_PAYMENT\_ (weight: 0.968)

108. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266 (weight: 0.892)

109. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225 (weight: 0.569)

110. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.811)

111. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_\_\_\_124731\_405 (weight: 0.766)

112. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405 (weight: 1.000)

113. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.941)

114. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1 (weight: 0.642)

115. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 0.884)

116. LabelPMean\_credit\_card\_balance\_train\_csv\_AMT\_CREDIT\_LIMIT\_ACTUAL\_\_where\_AMT\_BALANCE\_\_\_\_0\_0225 (weight: 0.863)

117. LabelPMean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025 (weight: 0.762)

118. LabelPMean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_ (weight: 0.857)

119. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.559)

120. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 1.000)

121. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.626)

122. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ (weight: 1.000)

123. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 0.822)

124. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.925)

125. LabelPMedian\_credit\_card\_balance\_train\_csv\_AMT\_RECIVABLE\_\_where\_SK\_DPD\_DEF\_\_\_\_0\_5 (weight: 0.878)

126. LabelPMedian\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_ (weight: 0.523)

127. LabelPMedian\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_ (weight: 0.549)

128. LabelPMedian\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_ (weight: 0.883)

129. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.810)

130. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225 (weight: 0.867)

131. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit (weight: 0.507)

132. LabelPMin\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_OTHER\_CURRENT\_ (weight: 0.668)

133. LabelPMode\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_ (weight: 0.880)

134. LabelPMode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_ (weight: 0.509)

135. LabelPMode\_previous\_application\_train\_csv\_NAME\_SELLER\_INDUSTRY\_ (weight: 0.895)

136. LabelPNAME\_EDUCATION\_TYPE (weight: 0.758)

137. LabelPOCCUPATION\_TYPE (weight: 0.543)

138. LabelPORGANIZATION\_TYPE (weight: 0.841)

139. LabelPOWN\_CAR\_AGE (weight: 0.618)

140. LabelPREGION\_POPULATION\_RELATIVE (weight: 0.709)

141. LabelPREG\_CITY\_NOT\_LIVE\_CITY (weight: 0.592)

142. LabelPREG\_CITY\_NOT\_WORK\_CITY (weight: 0.629)

143. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5 (weight: 0.532)

144. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_ (weight: 0.517)

145. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_ (weight: 0.521)

146. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5 (weight: 0.536)

147. LabelPStdDev\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.614)

148. LabelPStdDev\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_ (weight: 0.711)

149. LabelPStdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_ (weight: 0.946)

150. LabelPStdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_NUM\_INSTALMENT\_NUMBER\_\_\_8\_5 (weight: 0.518)

151. LabelPStdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_VERSION\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_1\_5 (weight: 0.760)

152. LabelPStdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_ (weight: 0.516)

153. LabelPSum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5 (weight: 0.634)

154. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 1.000)

155. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.685)

156. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.992)

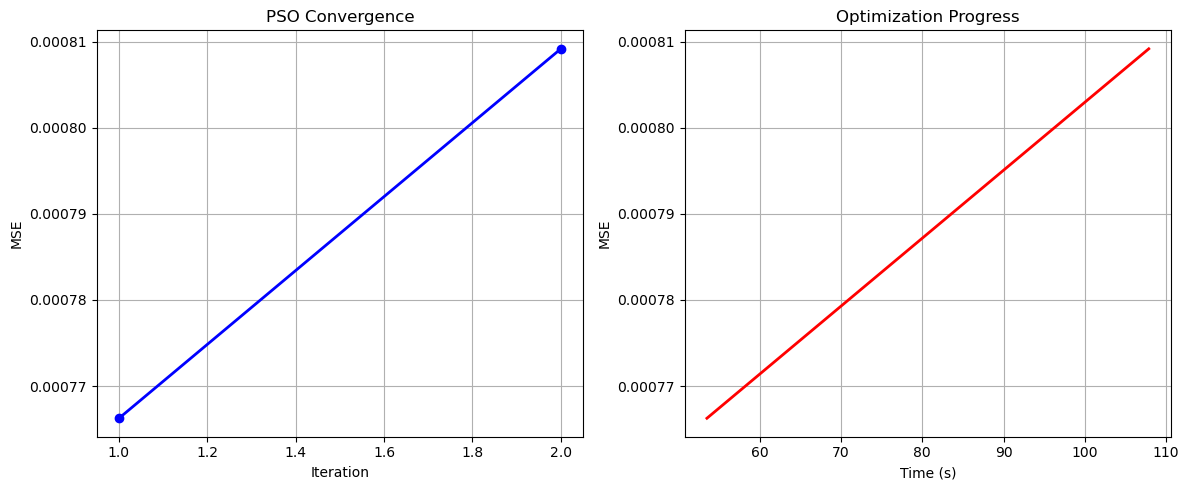
157. LabelPSum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 0.634)

158. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 1.000)

159. LabelPSum\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_8088\_8175 (weight: 0.827)

160. LabelPSum\_installments\_payments\_train\_csv\_SK\_ID\_PREV\_\_where\_AMT\_INSTALMENT\_\_\_16549\_6725 (weight: 0.934)

161. LabelPYEARS\_BEGINEXPLUATATION\_AVG (weight: 0.597)



Particle Swarm Optimization completed successfully with MSE: 0.0008

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Running Whale Optimization...

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=== WHALE OPTIMIZATION ALGORITHM ===

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[Initialization]

- Population: 30 whales

- Max iterations: 20

- Spiral coefficient (b): 1.0

- Search space: 334 features

- Target: Minimize MSE using XGBoost

[Optimization Progress]

Iter 20/20 | Best MSE: 0.000667

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=== OPTIMIZATION RESULTS ===

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▶ Best MSE achieved: 0.000667

▶ Time elapsed: 1857.54 seconds

▶ Features selected: 334/334 (0.0% reduction)

▶ Selected features:

1. AMT\_ANNUITY

2. AMT\_CREDIT

3. AMT\_GOODS\_PRICE

4. CODE\_GENDER

5. DAYS\_BIRTH

6. DAYS\_EMPLOYED

7. DAYS\_ID\_PUBLISH

8. DEF\_30\_CNT\_SOCIAL\_CIRCLE

9. DEF\_60\_CNT\_SOCIAL\_CIRCLE

10. EXT\_SOURCE\_1

11. EXT\_SOURCE\_2

12. EXT\_SOURCE\_3

13. FLAG\_DOCUMENT\_3

14. FLAG\_EMP\_PHONE

15. FLAG\_OWN\_CAR

16. FLOORSMAX\_MEDI

17. FLOORSMAX\_MODE

18. FLOORSMIN\_MEDI

19. LIVINGAPARTMENTS\_MEDI

20. LIVINGAREA\_AVG

21. NAME\_CONTRACT\_TYPE

22. NAME\_EDUCATION\_TYPE

23. NAME\_FAMILY\_STATUS

24. NAME\_INCOME\_TYPE

25. OCCUPATION\_TYPE

26. ORGANIZATION\_TYPE

27. OWN\_CAR\_AGE

28. REGION\_POPULATION\_RELATIVE

29. REGION\_RATING\_CLIENT

30. REGION\_RATING\_CLIENT\_W\_CITY

31. REG\_CITY\_NOT\_LIVE\_CITY

32. REG\_CITY\_NOT\_WORK\_CITY

33. SK\_ID\_CURR

34. TARGET

35. YEARS\_BEGINEXPLUATATION\_AVG

36. Count\_POS\_CASH\_balance\_train\_csv\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

37. Count\_POS\_CASH\_balance\_train\_csv\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

38. Count\_bureau\_train\_csv\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

39. Count\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

40. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

41. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

42. CountDistinct\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

43. CountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

44. CountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225

45. CountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

46. CountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

47. Max\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5

48. Max\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5

49. Max\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

50. Max\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

51. Max\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

52. Max\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

53. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

54. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

55. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

56. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_0\_5

57. Max\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225

58. Max\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_CURRENT\_

59. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_

60. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175

61. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

62. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

63. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_SK\_ID\_PREV\_\_\_\_1897795\_5

64. Max\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_

65. Max\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

66. Max\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

67. Max\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

68. Max\_previous\_application\_train\_csv\_CNT\_PAYMENT\_

69. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

70. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_\_1897266

71. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266

72. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

73. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

74. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active

75. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225

76. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_\_0\_5

77. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

78. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_\_\_\_124731\_405

79. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

80. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_\_0\_0675

81. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

82. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

83. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

84. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

85. Mean\_credit\_card\_balance\_train\_csv\_AMT\_CREDIT\_LIMIT\_ACTUAL\_\_where\_AMT\_BALANCE\_\_\_\_0\_0225

86. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

87. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5

88. Mean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

89. Mean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

90. Mean\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

91. Mean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_

92. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

93. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

94. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

95. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

96. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

97. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

98. Median\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

99. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_

100. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

101. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

102. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

103. Median\_credit\_card\_balance\_train\_csv\_AMT\_RECIVABLE\_\_where\_SK\_DPD\_DEF\_\_\_\_0\_5

104. Median\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

105. Median\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_1663\_5

106. Median\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

107. Median\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

108. Median\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

109. Min\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_

110. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

111. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

112. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225

113. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

114. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

115. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit

116. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

117. Min\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_OTHER\_CURRENT\_

118. Min\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

119. Min\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

120. Min\_previous\_application\_train\_csv\_HOUR\_APPR\_PROCESS\_START\_

121. Min\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

122. Mode\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

123. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

124. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

125. Mode\_bureau\_train\_csv\_CREDIT\_TYPE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

126. Mode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

127. Mode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

128. Mode\_previous\_application\_train\_csv\_NAME\_SELLER\_INDUSTRY\_

129. StdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

130. StdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

131. StdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_MONTHS\_BALANCE\_\_\_\_\_27\_5

132. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5

133. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_

134. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

135. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

136. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_

137. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

138. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

139. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

140. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

141. StdDev\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

142. StdDev\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_ATM\_CURRENT\_

143. StdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

144. StdDev\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

145. StdDev\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

146. StdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

147. StdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_NUM\_INSTALMENT\_NUMBER\_\_\_8\_5

148. StdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_VERSION\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_1\_5

149. StdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

150. Sum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

151. Sum\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_SK\_DPD\_\_\_\_0\_5

152. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

153. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

154. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

155. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

156. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

157. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

158. Sum\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

159. Sum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

160. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

161. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_\_\_\_\_983\_5

162. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

163. Sum\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_ATM\_CURRENT\_\_where\_AMT\_INST\_MIN\_REGULARITY\_\_\_0\_0225

164. Sum\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

165. Sum\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_INSTALMENT\_in\_\_\_1654\_5\_\_\_821\_5\_

166. Sum\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

167. Sum\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_8088\_8175

168. Sum\_installments\_payments\_train\_csv\_SK\_ID\_PREV\_\_where\_AMT\_INSTALMENT\_\_\_16549\_6725

169. LabelPAMT\_ANNUITY

170. LabelPAMT\_CREDIT

171. LabelPAMT\_GOODS\_PRICE

172. LabelPCODE\_GENDER

173. LabelPCount\_POS\_CASH\_balance\_train\_csv\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

174. LabelPCount\_POS\_CASH\_balance\_train\_csv\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

175. LabelPCount\_bureau\_train\_csv\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

176. LabelPCount\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

177. LabelPCount\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

178. LabelPCount\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

179. LabelPCountDistinct\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

180. LabelPCountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

181. LabelPCountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225

182. LabelPCountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

183. LabelPCountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

184. LabelPDAYS\_BIRTH

185. LabelPDAYS\_EMPLOYED

186. LabelPDAYS\_ID\_PUBLISH

187. LabelPDEF\_30\_CNT\_SOCIAL\_CIRCLE

188. LabelPDEF\_60\_CNT\_SOCIAL\_CIRCLE

189. LabelPEXT\_SOURCE\_1

190. LabelPEXT\_SOURCE\_2

191. LabelPEXT\_SOURCE\_3

192. LabelPFLAG\_DOCUMENT\_3

193. LabelPFLAG\_EMP\_PHONE

194. LabelPFLAG\_OWN\_CAR

195. LabelPFLOORSMAX\_MEDI

196. LabelPFLOORSMAX\_MODE

197. LabelPFLOORSMIN\_MEDI

198. LabelPLIVINGAPARTMENTS\_MEDI

199. LabelPLIVINGAREA\_AVG

200. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5

201. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5

202. LabelPMax\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

203. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

204. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

205. LabelPMax\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

206. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

207. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

208. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

209. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_0\_5

210. LabelPMax\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225

211. LabelPMax\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_CURRENT\_

212. LabelPMax\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_

213. LabelPMax\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175

214. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

215. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

216. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_SK\_ID\_PREV\_\_\_\_1897795\_5

217. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_

218. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

219. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

220. LabelPMax\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

221. LabelPMax\_previous\_application\_train\_csv\_CNT\_PAYMENT\_

222. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

223. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_\_1897266

224. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266

225. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

226. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

227. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active

228. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225

229. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_\_0\_5

230. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

231. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_\_\_\_124731\_405

232. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

233. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_\_0\_0675

234. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

235. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

236. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

237. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

238. LabelPMean\_credit\_card\_balance\_train\_csv\_AMT\_CREDIT\_LIMIT\_ACTUAL\_\_where\_AMT\_BALANCE\_\_\_\_0\_0225

239. LabelPMean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

240. LabelPMean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5

241. LabelPMean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

242. LabelPMean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

243. LabelPMean\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

244. LabelPMean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_

245. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

246. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

247. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

248. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

249. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

250. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

251. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

252. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_

253. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

254. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

255. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

256. LabelPMedian\_credit\_card\_balance\_train\_csv\_AMT\_RECIVABLE\_\_where\_SK\_DPD\_DEF\_\_\_\_0\_5

257. LabelPMedian\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

258. LabelPMedian\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_1663\_5

259. LabelPMedian\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

260. LabelPMedian\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

261. LabelPMedian\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

262. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_

263. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

264. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

265. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225

266. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

267. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

268. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit

269. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

270. LabelPMin\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_OTHER\_CURRENT\_

271. LabelPMin\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

272. LabelPMin\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

273. LabelPMin\_previous\_application\_train\_csv\_HOUR\_APPR\_PROCESS\_START\_

274. LabelPMin\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

275. LabelPMode\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

276. LabelPMode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

277. LabelPMode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

278. LabelPMode\_bureau\_train\_csv\_CREDIT\_TYPE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

279. LabelPMode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

280. LabelPMode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

281. LabelPMode\_previous\_application\_train\_csv\_NAME\_SELLER\_INDUSTRY\_

282. LabelPNAME\_CONTRACT\_TYPE

283. LabelPNAME\_EDUCATION\_TYPE

284. LabelPNAME\_FAMILY\_STATUS

285. LabelPNAME\_INCOME\_TYPE

286. LabelPOCCUPATION\_TYPE

287. LabelPORGANIZATION\_TYPE

288. LabelPOWN\_CAR\_AGE

289. LabelPREGION\_POPULATION\_RELATIVE

290. LabelPREGION\_RATING\_CLIENT

291. LabelPREGION\_RATING\_CLIENT\_W\_CITY

292. LabelPREG\_CITY\_NOT\_LIVE\_CITY

293. LabelPREG\_CITY\_NOT\_WORK\_CITY

294. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

295. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

296. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_MONTHS\_BALANCE\_\_\_\_\_27\_5

297. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5

298. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_

299. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

300. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

301. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_

302. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

303. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

304. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

305. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

306. LabelPStdDev\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

307. LabelPStdDev\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_ATM\_CURRENT\_

308. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

309. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

310. LabelPStdDev\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

311. LabelPStdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

312. LabelPStdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_NUM\_INSTALMENT\_NUMBER\_\_\_8\_5

313. LabelPStdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_VERSION\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_1\_5

314. LabelPStdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

315. LabelPSum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

316. LabelPSum\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_SK\_DPD\_\_\_\_0\_5

317. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

318. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

319. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

320. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

321. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

322. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

323. LabelPSum\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

324. LabelPSum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

325. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

326. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_\_\_\_\_983\_5

327. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

328. LabelPSum\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_ATM\_CURRENT\_\_where\_AMT\_INST\_MIN\_REGULARITY\_\_\_0\_0225

329. LabelPSum\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

330. LabelPSum\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_INSTALMENT\_in\_\_\_1654\_5\_\_\_821\_5\_

331. LabelPSum\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

332. LabelPSum\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_8088\_8175

333. LabelPSum\_installments\_payments\_train\_csv\_SK\_ID\_PREV\_\_where\_AMT\_INSTALMENT\_\_\_16549\_6725

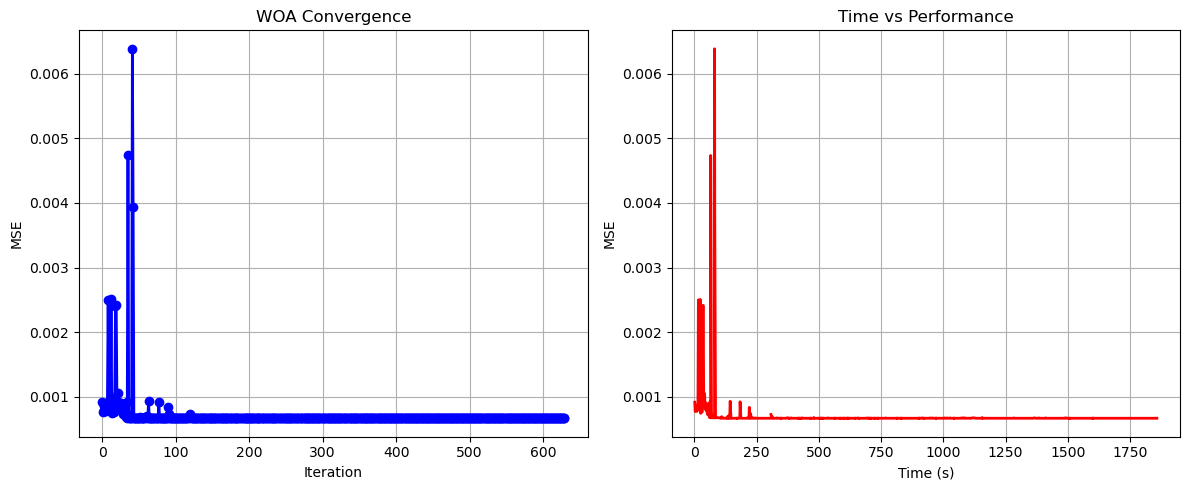
334. LabelPYEARS\_BEGINEXPLUATATION\_AVG

▶ Convergence progress:

- Initial MSE: 0.0009

- Final MSE: 0.0007

- Improvement: 27.1%



Whale Optimization completed successfully with MSE: 0.0007

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Running Squid Game Optimizer...

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=== SQUID GAME OPTIMIZER (SGO) ===

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[Initialization]

- Players: 30 (15 offensive, 15 defensive)

- Max games: 20

- Search space: 334 features

- Target: Minimize MSE using XGBoost

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=== OPTIMIZATION RESULTS ===

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▶ Best MSE achieved: 0.000709

▶ Time elapsed: 1042.50 seconds

▶ Features selected: 157/334 (53.0% reduction)

▶ Selected features:

1. AMT\_GOODS\_PRICE

2. EXT\_SOURCE\_1

3. EXT\_SOURCE\_2

4. EXT\_SOURCE\_3

5. FLAG\_DOCUMENT\_3

6. FLOORSMAX\_MODE

7. LIVINGAPARTMENTS\_MEDI

8. LIVINGAREA\_AVG

9. NAME\_CONTRACT\_TYPE

10. OCCUPATION\_TYPE

11. Count\_POS\_CASH\_balance\_train\_csv\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

12. Count\_POS\_CASH\_balance\_train\_csv\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

13. Count\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

14. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

15. CountDistinct\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

16. CountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

17. CountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225

18. CountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

19. Max\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

20. Max\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

21. Max\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

22. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

23. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

24. Max\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225

25. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175

26. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

27. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

28. Max\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_

29. Max\_previous\_application\_train\_csv\_CNT\_PAYMENT\_

30. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

31. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

32. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225

33. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

34. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_\_\_\_124731\_405

35. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

36. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

37. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

38. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5

39. Mean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_

40. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

41. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

42. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

43. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

44. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

45. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

46. Median\_credit\_card\_balance\_train\_csv\_AMT\_RECIVABLE\_\_where\_SK\_DPD\_DEF\_\_\_\_0\_5

47. Median\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_1663\_5

48. Median\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

49. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225

50. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

51. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit

52. Min\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

53. Min\_previous\_application\_train\_csv\_HOUR\_APPR\_PROCESS\_START\_

54. Min\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

55. Mode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

56. Mode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

57. StdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

58. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5

59. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

60. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

61. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

62. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

63. StdDev\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

64. StdDev\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

65. StdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

66. StdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_VERSION\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_1\_5

67. StdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

68. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

69. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

70. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

71. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

72. Sum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

73. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

74. Sum\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_ATM\_CURRENT\_\_where\_AMT\_INST\_MIN\_REGULARITY\_\_\_0\_0225

75. Sum\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

76. Sum\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_INSTALMENT\_in\_\_\_1654\_5\_\_\_821\_5\_

77. Sum\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_8088\_8175

78. Sum\_installments\_payments\_train\_csv\_SK\_ID\_PREV\_\_where\_AMT\_INSTALMENT\_\_\_16549\_6725

79. LabelPAMT\_ANNUITY

80. LabelPAMT\_CREDIT

81. LabelPCODE\_GENDER

82. LabelPCount\_bureau\_train\_csv\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

83. LabelPCount\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

84. LabelPCountDistinct\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

85. LabelPCountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

86. LabelPCountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225

87. LabelPCountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

88. LabelPDAYS\_BIRTH

89. LabelPDAYS\_EMPLOYED

90. LabelPDAYS\_ID\_PUBLISH

91. LabelPDEF\_30\_CNT\_SOCIAL\_CIRCLE

92. LabelPDEF\_60\_CNT\_SOCIAL\_CIRCLE

93. LabelPEXT\_SOURCE\_1

94. LabelPEXT\_SOURCE\_2

95. LabelPFLAG\_EMP\_PHONE

96. LabelPFLAG\_OWN\_CAR

97. LabelPFLOORSMAX\_MEDI

98. LabelPFLOORSMAX\_MODE

99. LabelPFLOORSMIN\_MEDI

100. LabelPLIVINGAREA\_AVG

101. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5

102. LabelPMax\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

103. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

104. LabelPMax\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

105. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

106. LabelPMax\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225

107. LabelPMax\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175

108. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_SK\_ID\_PREV\_\_\_\_1897795\_5

109. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

110. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

111. LabelPMax\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

112. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

113. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266

114. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

115. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active

116. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_\_\_\_124731\_405

117. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

118. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

119. LabelPMean\_credit\_card\_balance\_train\_csv\_AMT\_CREDIT\_LIMIT\_ACTUAL\_\_where\_AMT\_BALANCE\_\_\_\_0\_0225

120. LabelPMean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

121. LabelPMean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_

122. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

123. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

124. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_

125. LabelPMedian\_credit\_card\_balance\_train\_csv\_AMT\_RECIVABLE\_\_where\_SK\_DPD\_DEF\_\_\_\_0\_5

126. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_

127. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225

128. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

129. LabelPMin\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

130. LabelPMode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

131. LabelPMode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

132. LabelPNAME\_EDUCATION\_TYPE

133. LabelPNAME\_INCOME\_TYPE

134. LabelPOCCUPATION\_TYPE

135. LabelPORGANIZATION\_TYPE

136. LabelPOWN\_CAR\_AGE

137. LabelPREGION\_RATING\_CLIENT\_W\_CITY

138. LabelPREG\_CITY\_NOT\_LIVE\_CITY

139. LabelPREG\_CITY\_NOT\_WORK\_CITY

140. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

141. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

142. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_

143. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

144. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

145. LabelPStdDev\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

146. LabelPStdDev\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_ATM\_CURRENT\_

147. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

148. LabelPStdDev\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

149. LabelPStdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_NUM\_INSTALMENT\_NUMBER\_\_\_8\_5

150. LabelPSum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

151. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

152. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

153. LabelPSum\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

154. LabelPSum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

155. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_\_\_\_\_983\_5

156. LabelPSum\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_INSTALMENT\_in\_\_\_1654\_5\_\_\_821\_5\_

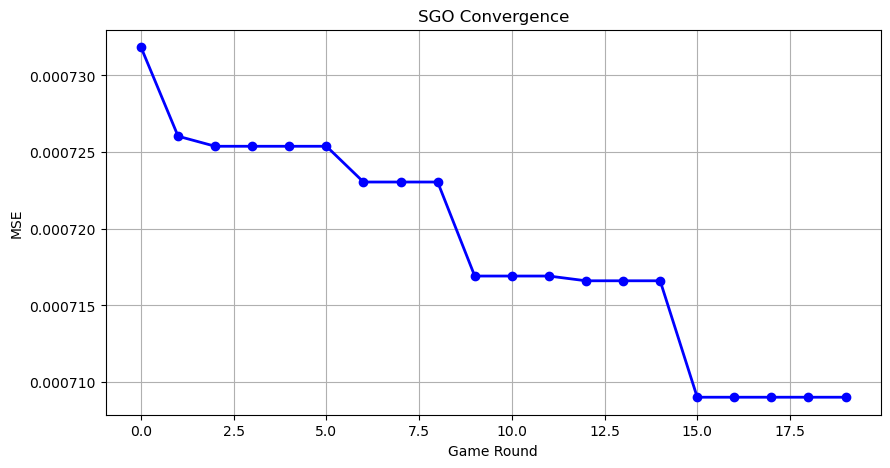
157. LabelPSum\_installments\_payments\_train\_csv\_SK\_ID\_PREV\_\_where\_AMT\_INSTALMENT\_\_\_16549\_6725

▶ Convergence progress:

- Initial MSE: 0.0007

- Final MSE: 0.0007

- Improvement: 3.1%



Squid Game Optimizer completed successfully with MSE: 0.0007

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Running PSH-Hyptrite...

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=== PSH-HYPTRITE OPTIMIZATION ===

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[Initialization]

- Search points: 30

- Max iterations: 20

- Initial radius: 0.5 (adaptive)

- Hypersphere samples: 3 per point

- Search space: 334 features

- Target: Minimize MSE using XGBoost

[Optimization Progress]

Iter 20/20 | Best MSE: 0.000710 | Radius: 0.0250

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=== OPTIMIZATION RESULTS ===

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▶ Best MSE achieved: 0.000710

▶ Time elapsed: 3298.27 seconds

▶ Features selected: 175/334 (47.6% reduction)

▶ Selected features (with weights):

1. AMT\_GOODS\_PRICE (weight: 0.903)

2. CODE\_GENDER (weight: 0.711)

3. DAYS\_BIRTH (weight: 0.690)

4. DEF\_30\_CNT\_SOCIAL\_CIRCLE (weight: 0.915)

5. EXT\_SOURCE\_2 (weight: 0.637)

6. EXT\_SOURCE\_3 (weight: 0.759)

7. FLAG\_EMP\_PHONE (weight: 0.849)

8. FLAG\_OWN\_CAR (weight: 0.997)

9. FLOORSMAX\_MEDI (weight: 0.799)

10. LIVINGAPARTMENTS\_MEDI (weight: 0.635)

11. NAME\_CONTRACT\_TYPE (weight: 0.726)

12. NAME\_EDUCATION\_TYPE (weight: 0.775)

13. NAME\_INCOME\_TYPE (weight: 0.658)

14. REGION\_RATING\_CLIENT (weight: 0.589)

15. REGION\_RATING\_CLIENT\_W\_CITY (weight: 0.793)

16. TARGET (weight: 0.779)

17. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 0.553)

18. CountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5 (weight: 0.632)

19. CountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_ (weight: 0.909)

20. CountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_ (weight: 0.942)

21. Max\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5 (weight: 0.675)

22. Max\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.703)

23. Max\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225 (weight: 0.902)

24. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.788)

25. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.531)

26. Max\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_CURRENT\_ (weight: 0.687)

27. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_ (weight: 0.606)

28. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_ (weight: 0.519)

29. Max\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_ (weight: 0.913)

30. Max\_previous\_application\_train\_csv\_CNT\_PAYMENT\_ (weight: 0.506)

31. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.920)

32. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active (weight: 0.510)

33. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225 (weight: 0.632)

34. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_\_0\_5 (weight: 0.503)

35. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.938)

36. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_\_0\_0675 (weight: 0.630)

37. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.755)

38. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1 (weight: 0.919)

39. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 0.937)

40. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5 (weight: 0.694)

41. Mean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5 (weight: 0.546)

42. Mean\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45 (weight: 0.833)

43. Mean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_ (weight: 0.882)

44. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.872)

45. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.948)

46. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5 (weight: 0.983)

47. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 0.940)

48. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5 (weight: 0.884)

49. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.813)

50. Median\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225 (weight: 0.559)

51. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.809)

52. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 0.901)

53. Median\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_ (weight: 0.747)

54. Median\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_ (weight: 0.528)

55. Median\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_ (weight: 0.657)

56. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.916)

57. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225 (weight: 0.823)

58. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.569)

59. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit (weight: 0.848)

60. Min\_previous\_application\_train\_csv\_HOUR\_APPR\_PROCESS\_START\_ (weight: 0.847)

61. Mode\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_ (weight: 0.969)

62. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1 (weight: 0.730)

63. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.599)

64. Mode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_ (weight: 0.738)

65. StdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5 (weight: 0.879)

66. StdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_ (weight: 0.538)

67. StdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_MONTHS\_BALANCE\_\_\_\_\_27\_5 (weight: 0.826)

68. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5 (weight: 1.000)

69. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_ (weight: 0.925)

70. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_CNT\_INSTALMENT\_\_\_24\_5 (weight: 0.779)

71. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5 (weight: 0.601)

72. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.597)

73. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405 (weight: 0.982)

74. StdDev\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.669)

75. StdDev\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_ATM\_CURRENT\_ (weight: 0.512)

76. StdDev\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_ (weight: 0.765)

77. StdDev\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_ (weight: 0.951)

78. StdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_ (weight: 0.580)

79. StdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_VERSION\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_1\_5 (weight: 0.942)

80. Sum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5 (weight: 0.712)

81. Sum\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_SK\_DPD\_\_\_\_0\_5 (weight: 0.747)

82. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405 (weight: 0.710)

83. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.531)

84. Sum\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405 (weight: 0.762)

85. Sum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 0.651)

86. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_\_\_\_\_983\_5 (weight: 0.603)

87. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.523)

88. Sum\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_ATM\_CURRENT\_\_where\_AMT\_INST\_MIN\_REGULARITY\_\_\_0\_0225 (weight: 0.978)

89. Sum\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28 (weight: 0.899)

90. Sum\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_8088\_8175 (weight: 0.904)

91. LabelPAMT\_CREDIT (weight: 0.761)

92. LabelPAMT\_GOODS\_PRICE (weight: 0.644)

93. LabelPCount\_POS\_CASH\_balance\_train\_csv\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_ (weight: 0.997)

94. LabelPCount\_POS\_CASH\_balance\_train\_csv\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.743)

95. LabelPCount\_bureau\_train\_csv\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.844)

96. LabelPCount\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.770)

97. LabelPCountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_ (weight: 0.560)

98. LabelPCountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_ (weight: 0.530)

99. LabelPDAYS\_EMPLOYED (weight: 0.858)

100. LabelPDEF\_60\_CNT\_SOCIAL\_CIRCLE (weight: 0.762)

101. LabelPEXT\_SOURCE\_1 (weight: 0.970)

102. LabelPEXT\_SOURCE\_2 (weight: 0.539)

103. LabelPEXT\_SOURCE\_3 (weight: 0.986)

104. LabelPFLAG\_DOCUMENT\_3 (weight: 0.760)

105. LabelPFLAG\_EMP\_PHONE (weight: 0.788)

106. LabelPFLOORSMAX\_MEDI (weight: 0.553)

107. LabelPFLOORSMAX\_MODE (weight: 0.571)

108. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5 (weight: 0.898)

109. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5 (weight: 0.974)

110. LabelPMax\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.509)

111. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.686)

112. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_0\_5 (weight: 0.557)

113. LabelPMax\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225 (weight: 0.612)

114. LabelPMax\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_ (weight: 0.678)

115. LabelPMax\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175 (weight: 0.896)

116. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_ (weight: 0.739)

117. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_ (weight: 0.859)

118. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_SK\_ID\_PREV\_\_\_\_1897795\_5 (weight: 0.756)

119. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5 (weight: 0.511)

120. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_\_1897266 (weight: 0.661)

121. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266 (weight: 0.527)

122. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active (weight: 0.610)

123. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225 (weight: 0.645)

124. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405 (weight: 0.818)

125. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.854)

126. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.551)

127. LabelPMean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025 (weight: 0.640)

128. LabelPMean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5 (weight: 0.774)

129. LabelPMean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5 (weight: 0.865)

130. LabelPMean\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45 (weight: 0.958)

131. LabelPMean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_ (weight: 0.892)

132. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5 (weight: 0.614)

133. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5 (weight: 0.623)

134. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 0.538)

135. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225 (weight: 0.731)

136. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ (weight: 0.945)

137. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 0.502)

138. LabelPMedian\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_ (weight: 0.941)

139. LabelPMedian\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_ (weight: 0.981)

140. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_ (weight: 1.000)

141. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.616)

142. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit (weight: 0.505)

143. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.733)

144. LabelPMin\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025 (weight: 0.552)

145. LabelPMin\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_ (weight: 0.619)

146. LabelPMode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.700)

147. LabelPMode\_bureau\_train\_csv\_CREDIT\_TYPE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.870)

148. LabelPMode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_ (weight: 0.837)

149. LabelPMode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_ (weight: 0.806)

150. LabelPNAME\_CONTRACT\_TYPE (weight: 0.764)

151. LabelPNAME\_EDUCATION\_TYPE (weight: 0.700)

152. LabelPNAME\_INCOME\_TYPE (weight: 0.987)

153. LabelPOCCUPATION\_TYPE (weight: 1.000)

154. LabelPORGANIZATION\_TYPE (weight: 0.718)

155. LabelPOWN\_CAR\_AGE (weight: 0.850)

156. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5 (weight: 0.615)

157. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_ (weight: 0.841)

158. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_MONTHS\_BALANCE\_\_\_\_\_27\_5 (weight: 0.889)

159. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_ (weight: 0.609)

160. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405 (weight: 0.638)

161. LabelPStdDev\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_ATM\_CURRENT\_ (weight: 0.855)

162. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28 (weight: 0.766)

163. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_ (weight: 0.561)

164. LabelPStdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_ (weight: 0.656)

165. LabelPSum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5 (weight: 0.764)

166. LabelPSum\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_SK\_DPD\_\_\_\_0\_5 (weight: 0.752)

167. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675 (weight: 0.920)

168. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.706)

169. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit (weight: 0.681)

170. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5 (weight: 0.613)

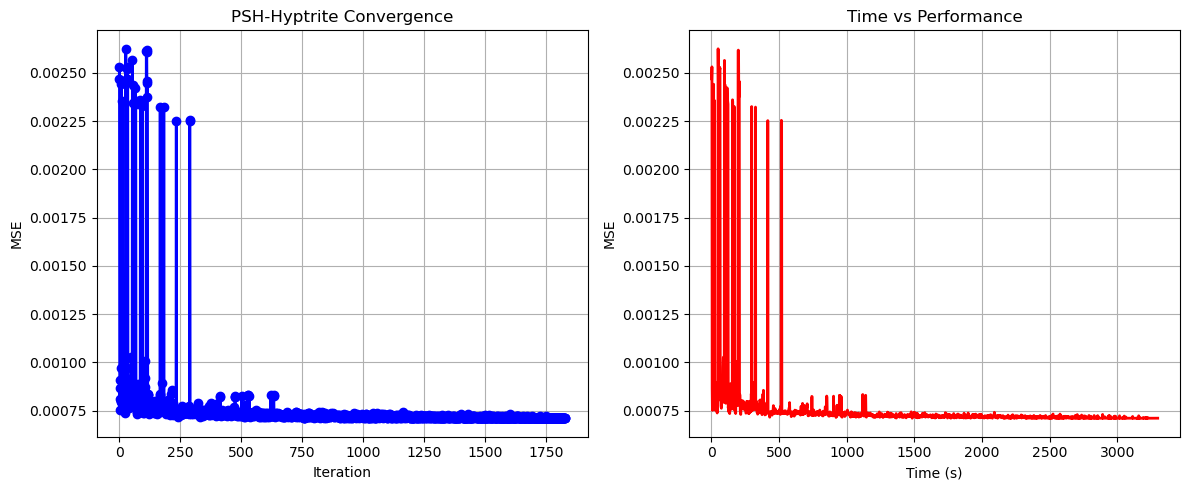
171. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed (weight: 0.833)

172. LabelPSum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5 (weight: 0.969)

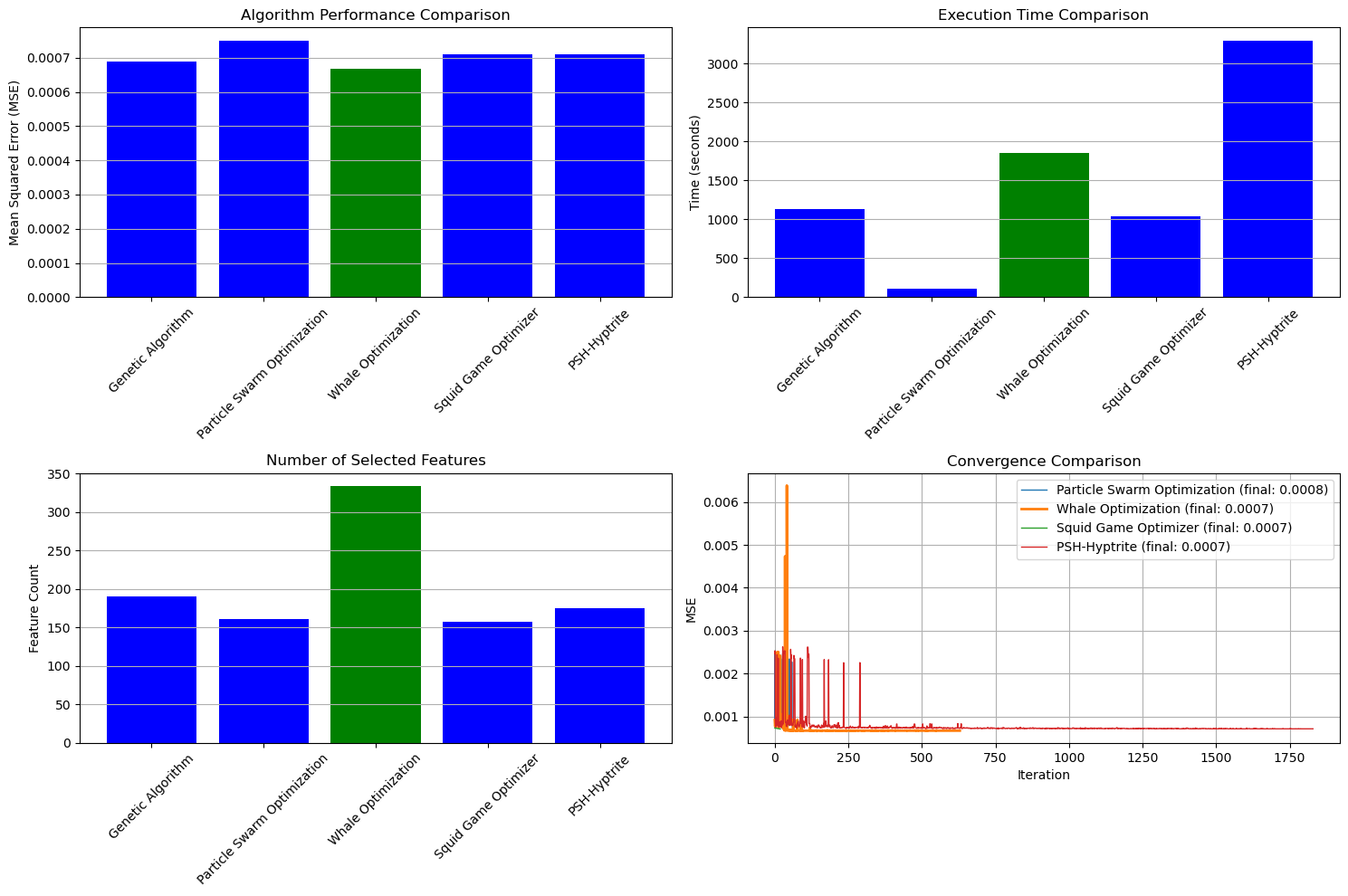
173. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit (weight: 0.727)

174. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_\_\_\_\_983\_5 (weight: 0.880)

175. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5 (weight: 0.919)



PSH-Hyptrite completed successfully with MSE: 0.0007



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FINAL RESULTS SUMMARY

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🏆 Best Algorithm: Whale Optimization

📉 Best MSE Achieved: 0.000667

⏱️ Execution Time: 1857.54 seconds

🔢 Features Selected: 334

Selected Features:

1. AMT\_ANNUITY

2. AMT\_CREDIT

3. AMT\_GOODS\_PRICE

4. CODE\_GENDER

5. DAYS\_BIRTH

6. DAYS\_EMPLOYED

7. DAYS\_ID\_PUBLISH

8. DEF\_30\_CNT\_SOCIAL\_CIRCLE

9. DEF\_60\_CNT\_SOCIAL\_CIRCLE

10. EXT\_SOURCE\_1

11. EXT\_SOURCE\_2

12. EXT\_SOURCE\_3

13. FLAG\_DOCUMENT\_3

14. FLAG\_EMP\_PHONE

15. FLAG\_OWN\_CAR

16. FLOORSMAX\_MEDI

17. FLOORSMAX\_MODE

18. FLOORSMIN\_MEDI

19. LIVINGAPARTMENTS\_MEDI

20. LIVINGAREA\_AVG

21. NAME\_CONTRACT\_TYPE

22. NAME\_EDUCATION\_TYPE

23. NAME\_FAMILY\_STATUS

24. NAME\_INCOME\_TYPE

25. OCCUPATION\_TYPE

26. ORGANIZATION\_TYPE

27. OWN\_CAR\_AGE

28. REGION\_POPULATION\_RELATIVE

29. REGION\_RATING\_CLIENT

30. REGION\_RATING\_CLIENT\_W\_CITY

31. REG\_CITY\_NOT\_LIVE\_CITY

32. REG\_CITY\_NOT\_WORK\_CITY

33. SK\_ID\_CURR

34. TARGET

35. YEARS\_BEGINEXPLUATATION\_AVG

36. Count\_POS\_CASH\_balance\_train\_csv\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

37. Count\_POS\_CASH\_balance\_train\_csv\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

38. Count\_bureau\_train\_csv\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

39. Count\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

40. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

41. Count\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

42. CountDistinct\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

43. CountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

44. CountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225

45. CountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

46. CountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

47. Max\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5

48. Max\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5

49. Max\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

50. Max\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

51. Max\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

52. Max\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

53. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

54. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

55. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

56. Max\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_0\_5

57. Max\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225

58. Max\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_CURRENT\_

59. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_

60. Max\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175

61. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

62. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

63. Max\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_SK\_ID\_PREV\_\_\_\_1897795\_5

64. Max\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_

65. Max\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

66. Max\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

67. Max\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

68. Max\_previous\_application\_train\_csv\_CNT\_PAYMENT\_

69. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

70. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_\_1897266

71. Mean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266

72. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

73. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

74. Mean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active

75. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225

76. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_\_0\_5

77. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

78. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_\_\_\_124731\_405

79. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

80. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_\_0\_0675

81. Mean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

82. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

83. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

84. Mean\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

85. Mean\_credit\_card\_balance\_train\_csv\_AMT\_CREDIT\_LIMIT\_ACTUAL\_\_where\_AMT\_BALANCE\_\_\_\_0\_0225

86. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

87. Mean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5

88. Mean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

89. Mean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

90. Mean\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

91. Mean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_

92. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

93. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

94. Median\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

95. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

96. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

97. Median\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

98. Median\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

99. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_

100. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

101. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

102. Median\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

103. Median\_credit\_card\_balance\_train\_csv\_AMT\_RECIVABLE\_\_where\_SK\_DPD\_DEF\_\_\_\_0\_5

104. Median\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

105. Median\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_1663\_5

106. Median\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

107. Median\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

108. Median\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

109. Min\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_

110. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

111. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

112. Min\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225

113. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

114. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

115. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit

116. Min\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

117. Min\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_OTHER\_CURRENT\_

118. Min\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

119. Min\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

120. Min\_previous\_application\_train\_csv\_HOUR\_APPR\_PROCESS\_START\_

121. Min\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

122. Mode\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

123. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

124. Mode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

125. Mode\_bureau\_train\_csv\_CREDIT\_TYPE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

126. Mode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

127. Mode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

128. Mode\_previous\_application\_train\_csv\_NAME\_SELLER\_INDUSTRY\_

129. StdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

130. StdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

131. StdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_MONTHS\_BALANCE\_\_\_\_\_27\_5

132. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5

133. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_

134. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

135. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

136. StdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_

137. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

138. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

139. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

140. StdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

141. StdDev\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

142. StdDev\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_ATM\_CURRENT\_

143. StdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

144. StdDev\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

145. StdDev\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

146. StdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

147. StdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_NUM\_INSTALMENT\_NUMBER\_\_\_8\_5

148. StdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_VERSION\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_1\_5

149. StdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

150. Sum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

151. Sum\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_SK\_DPD\_\_\_\_0\_5

152. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

153. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

154. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

155. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

156. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

157. Sum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

158. Sum\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

159. Sum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

160. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

161. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_\_\_\_\_983\_5

162. Sum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

163. Sum\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_ATM\_CURRENT\_\_where\_AMT\_INST\_MIN\_REGULARITY\_\_\_0\_0225

164. Sum\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

165. Sum\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_INSTALMENT\_in\_\_\_1654\_5\_\_\_821\_5\_

166. Sum\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

167. Sum\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_8088\_8175

168. Sum\_installments\_payments\_train\_csv\_SK\_ID\_PREV\_\_where\_AMT\_INSTALMENT\_\_\_16549\_6725

169. LabelPAMT\_ANNUITY

170. LabelPAMT\_CREDIT

171. LabelPAMT\_GOODS\_PRICE

172. LabelPCODE\_GENDER

173. LabelPCount\_POS\_CASH\_balance\_train\_csv\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

174. LabelPCount\_POS\_CASH\_balance\_train\_csv\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

175. LabelPCount\_bureau\_train\_csv\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

176. LabelPCount\_bureau\_train\_csv\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

177. LabelPCount\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

178. LabelPCount\_bureau\_train\_csv\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

179. LabelPCountDistinct\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

180. LabelPCountDistinct\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

181. LabelPCountDistinct\_credit\_card\_balance\_train\_csv\_NAME\_CONTRACT\_STATUS\_\_where\_AMT\_RECIVABLE\_\_\_0\_0225

182. LabelPCountDistinct\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

183. LabelPCountDistinct\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

184. LabelPDAYS\_BIRTH

185. LabelPDAYS\_EMPLOYED

186. LabelPDAYS\_ID\_PUBLISH

187. LabelPDEF\_30\_CNT\_SOCIAL\_CIRCLE

188. LabelPDEF\_60\_CNT\_SOCIAL\_CIRCLE

189. LabelPEXT\_SOURCE\_1

190. LabelPEXT\_SOURCE\_2

191. LabelPEXT\_SOURCE\_3

192. LabelPFLAG\_DOCUMENT\_3

193. LabelPFLAG\_EMP\_PHONE

194. LabelPFLAG\_OWN\_CAR

195. LabelPFLOORSMAX\_MEDI

196. LabelPFLOORSMAX\_MODE

197. LabelPFLOORSMIN\_MEDI

198. LabelPLIVINGAPARTMENTS\_MEDI

199. LabelPLIVINGAREA\_AVG

200. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_\_\_\_7\_5

201. LabelPMax\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_SK\_DPD\_\_\_0\_5

202. LabelPMax\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

203. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

204. LabelPMax\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

205. LabelPMax\_bureau\_train\_csv\_CREDIT\_DAY\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

206. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

207. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

208. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

209. LabelPMax\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_0\_5

210. LabelPMax\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_\_0\_0225

211. LabelPMax\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_CURRENT\_

212. LabelPMax\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_

213. LabelPMax\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_8088\_8175

214. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

215. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

216. LabelPMax\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_SK\_ID\_PREV\_\_\_\_1897795\_5

217. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_

218. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

219. LabelPMax\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

220. LabelPMax\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

221. LabelPMax\_previous\_application\_train\_csv\_CNT\_PAYMENT\_

222. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

223. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_\_1897266

224. LabelPMean\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_SK\_ID\_PREV\_\_\_1897266

225. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

226. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

227. LabelPMean\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_NAME\_CONTRACT\_STATUS\_\_\_Active

228. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_\_0\_0225

229. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CREDIT\_DAY\_OVERDUE\_\_\_\_0\_5

230. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

231. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_\_\_\_124731\_405

232. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

233. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_\_0\_0675

234. LabelPMean\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

235. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

236. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

237. LabelPMean\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

238. LabelPMean\_credit\_card\_balance\_train\_csv\_AMT\_CREDIT\_LIMIT\_ACTUAL\_\_where\_AMT\_BALANCE\_\_\_\_0\_0225

239. LabelPMean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

240. LabelPMean\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_\_1\_5

241. LabelPMean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

242. LabelPMean\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_369\_5

243. LabelPMean\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

244. LabelPMean\_previous\_application\_train\_csv\_DAYS\_FIRST\_DRAWING\_

245. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

246. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_12\_5

247. LabelPMedian\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

248. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

249. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_\_\_\_983\_5

250. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

251. LabelPMedian\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_AMT\_CREDIT\_SUM\_OVERDUE\_\_\_0\_0225

252. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_

253. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

254. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

255. LabelPMedian\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

256. LabelPMedian\_credit\_card\_balance\_train\_csv\_AMT\_RECIVABLE\_\_where\_SK\_DPD\_DEF\_\_\_\_0\_5

257. LabelPMedian\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_NUM\_INSTALMENT\_VERSION\_in\_\_0\_5\_\_1\_5\_

258. LabelPMedian\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_1663\_5

259. LabelPMedian\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

260. LabelPMedian\_previous\_application\_train\_csv\_AMT\_DOWN\_PAYMENT\_

261. LabelPMedian\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

262. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_

263. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

264. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

265. LabelPMin\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_LIMIT\_\_\_0\_0225

266. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

267. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

268. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_CREDIT\_TYPE\_\_\_Consumer\_credit

269. LabelPMin\_bureau\_train\_csv\_DAYS\_CREDIT\_UPDATE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

270. LabelPMin\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_OTHER\_CURRENT\_

271. LabelPMin\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_\_\_8783\_3025

272. LabelPMin\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_DAYS\_ENTRY\_PAYMENT\_\_\_\_\_830\_5

273. LabelPMin\_previous\_application\_train\_csv\_HOUR\_APPR\_PROCESS\_START\_

274. LabelPMin\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

275. LabelPMode\_bureau\_balance\_preprocessed\_train\_csv\_STATUS\_\_where\_STATUS\_not\_in\_\_C\_\_0\_\_X\_

276. LabelPMode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_CREDIT\_CURRENCY\_\_\_currency\_1

277. LabelPMode\_bureau\_train\_csv\_CREDIT\_ACTIVE\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

278. LabelPMode\_bureau\_train\_csv\_CREDIT\_TYPE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

279. LabelPMode\_previous\_application\_train\_csv\_CODE\_REJECT\_REASON\_

280. LabelPMode\_previous\_application\_train\_csv\_NAME\_CONTRACT\_STATUS\_

281. LabelPMode\_previous\_application\_train\_csv\_NAME\_SELLER\_INDUSTRY\_

282. LabelPNAME\_CONTRACT\_TYPE

283. LabelPNAME\_EDUCATION\_TYPE

284. LabelPNAME\_FAMILY\_STATUS

285. LabelPNAME\_INCOME\_TYPE

286. LabelPOCCUPATION\_TYPE

287. LabelPORGANIZATION\_TYPE

288. LabelPOWN\_CAR\_AGE

289. LabelPREGION\_POPULATION\_RELATIVE

290. LabelPREGION\_RATING\_CLIENT

291. LabelPREGION\_RATING\_CLIENT\_W\_CITY

292. LabelPREG\_CITY\_NOT\_LIVE\_CITY

293. LabelPREG\_CITY\_NOT\_WORK\_CITY

294. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_CNT\_INSTALMENT\_FUTURE\_\_where\_MONTHS\_BALANCE\_\_\_\_27\_5

295. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

296. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_MONTHS\_BALANCE\_\_\_\_\_27\_5

297. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_\_where\_CNT\_INSTALMENT\_\_\_\_12\_5

298. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_

299. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_DPD\_DEF\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

300. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_3\_5\_\_7\_5\_

301. LabelPStdDev\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_CNT\_INSTALMENT\_FUTURE\_in\_\_7\_5\_\_13\_5\_

302. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

303. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_ENDDATE\_FACT\_\_\_\_\_1678\_5

304. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

305. LabelPStdDev\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

306. LabelPStdDev\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

307. LabelPStdDev\_credit\_card\_balance\_train\_csv\_AMT\_DRAWINGS\_ATM\_CURRENT\_

308. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

309. LabelPStdDev\_installments\_payments\_train\_csv\_AMT\_PAYMENT\_\_where\_AMT\_INSTALMENT\_in\_\_8783\_3025\_\_16549\_6725\_

310. LabelPStdDev\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

311. LabelPStdDev\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_in\_\_8088\_8175\_\_15929\_28\_

312. LabelPStdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_NUM\_INSTALMENT\_NUMBER\_\_\_8\_5

313. LabelPStdDev\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_VERSION\_\_where\_NUM\_INSTALMENT\_VERSION\_\_\_1\_5

314. LabelPStdDev\_previous\_application\_train\_csv\_RATE\_DOWN\_PAYMENT\_

315. LabelPSum\_POS\_CASH\_balance\_train\_csv\_MONTHS\_BALANCE\_\_where\_CNT\_INSTALMENT\_\_\_24\_5

316. LabelPSum\_POS\_CASH\_balance\_train\_csv\_SK\_ID\_PREV\_\_where\_SK\_DPD\_\_\_\_0\_5

317. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_AMT\_CREDIT\_SUM\_DEBT\_\_\_0\_0675

318. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_MAX\_OVERDUE\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

319. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_DEBT\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

320. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

321. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_LIMIT\_\_where\_DAYS\_CREDIT\_UPDATE\_\_\_\_403\_5

322. LabelPSum\_bureau\_train\_csv\_AMT\_CREDIT\_SUM\_OVERDUE\_\_where\_CREDIT\_ACTIVE\_\_\_\_Closed

323. LabelPSum\_bureau\_train\_csv\_DAYS\_CREDIT\_ENDDATE\_\_where\_AMT\_CREDIT\_SUM\_\_\_124731\_405

324. LabelPSum\_bureau\_train\_csv\_DAYS\_ENDDATE\_FACT\_\_where\_CNT\_CREDIT\_PROLONG\_\_\_\_0\_5

325. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_CREDIT\_TYPE\_\_\_\_Consumer\_credit

326. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_\_\_\_\_983\_5

327. LabelPSum\_bureau\_train\_csv\_SK\_ID\_BUREAU\_\_where\_DAYS\_CREDIT\_ENDDATE\_\_\_\_426\_5

328. LabelPSum\_credit\_card\_balance\_train\_csv\_CNT\_DRAWINGS\_ATM\_CURRENT\_\_where\_AMT\_INST\_MIN\_REGULARITY\_\_\_0\_0225

329. LabelPSum\_installments\_payments\_train\_csv\_AMT\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_15929\_28

330. LabelPSum\_installments\_payments\_train\_csv\_DAYS\_ENTRY\_PAYMENT\_\_where\_DAYS\_INSTALMENT\_in\_\_\_1654\_5\_\_\_821\_5\_

331. LabelPSum\_installments\_payments\_train\_csv\_DAYS\_INSTALMENT\_\_where\_AMT\_PAYMENT\_\_\_\_3375\_45

332. LabelPSum\_installments\_payments\_train\_csv\_NUM\_INSTALMENT\_NUMBER\_\_where\_AMT\_PAYMENT\_\_\_8088\_8175

333. LabelPSum\_installments\_payments\_train\_csv\_SK\_ID\_PREV\_\_where\_AMT\_INSTALMENT\_\_\_16549\_6725

334. LabelPYEARS\_BEGINEXPLUATATION\_AVG