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### 工作经历

### 机器学习算法工程师 | 竞技世界网络有限公司(北京)

北京 2021年12月 - 2023年2月

机器学习团队成员,负责人工智能相关技术服务的研发工作,落地于公司各类产品中,实现业务增长。

### 基于规则和模型的游戏匹配推荐系统

(Python, Java, Shell, PySpark, Spark, Hadoop, Ray, Hue, Impala SQL, Hive SQL, Pandas, Scikit-Learn, XGboost, TensorFlow)

 负责构建棋类游戏的匹配推荐服务,"千人千面"方式匹配用户不同风格类型的AI机器人,以提升用户游戏体验;探索用户游戏风格多样性, 优化AI机器人;筛选目标用户群,丰富推荐系统使用场景

william-awesome

- ◆ 负责构建机器学习和深度学习模型,训练迭代优化预测模型
- 负责实现离线和实时特征提取功能,构建并维护用户行为离线特征库
- ◆ 负责建立推荐系统评估体系,通过AB测试评估匹配推荐效果
- ◆ 跨职能团队协作,打通匹配推荐系统工程链路,建立系统校验机制

#### 实时风控异常用户的识别及处理

(Python, SQL, Imapla, Hive, Hue, Zeppelin, PySpark, Spark, Hadoop)

- ◆ 负责构建基于规则的风控服务,实时识别和干预游戏中的异常行为用户,净化游戏生态环境
- 负责制定异常用户识别和处理方案,负责评估引擎的命中效果和干预效果,实现将受影响的正常玩家比例,从10%降至小于1%
- 跨职能团队协作,协助打通实时特征处理的工程链路,构建离线特征提取和加工,提取用户行为特征

### 游戏AI训练样本的分布式处理

(Python, SQL, PySpark, Spark, Hadoop)

- ◆ 负责构建基于PySpark框架的训练样本转换工具,增大了转换效率,将原来算法团队与工程团队对接所需要的沟通成本和离线样本转换时间,由约一周降为30分钟,工具推广到团队4名同事使用,应用于10种以上该游戏产品的不同玩法模式中
- 提升了团队数据传输的安全性和合规性,在数仓表和集群数据处理全程未出库,避免敏感数据泄露的风险
- ◆ 主持召开工作组群的分享会,工具框架推广至其他团队使用

### 其他经历

### SLG游戏用户画像标签 北京 │ 2022年

参与SLG项目AI智能体研发团队,负责设计AI用户"人设标签",使AI具备多种性格和行为习惯,丰富AI多样性,在游戏发行后替代低质量用户,减少产品买量营销成本,并在中后期增强用户体验

### 教育背景

# 罗切斯特理工大学

纽约 2016年8月 - 2021年5月

### 计算机科学/理学硕士 ( GPA 3.50/4.00) 「全美专业排名52名」

- ◆ 相关课程: 大数据导论, 大数据分析(机器学习), 数据库系统实现, 自然语言处理(文本挖掘), 数据结构和算法, 面向对象编程等
- 获得学院大数据分析高级证书文凭
- 连续三年获得学院最高等奖学金

### 游戏设计与开发/理学硕士(GPA 3.28/4.00)「全美专业排名7名」

- 相关课程:游戏设计,游戏开发流程,游戏原型制作,关卡设计,游戏AI等
- ◆ 连续两年获得学院奖学金

# 成都信息工程大学 | 电子信息工程/工学学士

成都 | 2012年9月 - 2016年6月

# 专业技能

语言: 熟悉 SQL, Python, XML; 了解 Java, C/C++, C#, Clojure, HTML

框架: 熟悉 Spark SQL, MLlib, Scikit-learn, Pandas, NumPy; 了解 Ray Cluster, XGboost, TensorFlow, Keras, Matplotlib

工具和概念: Spark, Hive, Impala, Zeppelin, Hadoop, Linux, Shell, AWS, MySQL, MongoDB, Git, GitHub, AB Test, Agile, OOP, API

其他: 英语口语流利 (托福口语26/30)

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# **Experience**

# Machine Learning Engineer | JJWORLD (Beijing) NETWORK TECHNOLOGY CO.LTD

BEIJING | 2021.12 - 2023.02

Member of the Machine Learning team, responsible for the research and development of Al-related tech-services, which have been implemented in various game products of the company to achieve business growth.

### A Matchmaking System Based on Rule and ML Model (Python, Java, Shell, PySpark, Spark, Hadoop, Hue, Impala SQL, Hive SQL, Pandas, scikit-learn, XGboost, TensorFlow)

- Responsible for constructing machine learning and deep learning models, training and iteratively optimizing predictive models
- Responsible for implementing offline and real-time feature extraction and processing modules, constructing and maintaining an offline user behavior feature database
- Responsible for creating a recommendation system evaluation strategy, assessing matchmaking results through A/B testing
- Collaborated with cross-functional teams to streamline the matchmaking recommendation system engineering process and establish system validation mechanisms

### Real-Time Risk Control Abnormal User Identification and Processing (Python, SQL, Imapla, Hive, Hue, Zeppelin, PySpark, Spark, Hadoop)

- Responsible for constructing a real-time rule-based risk control service for abnormal user identification and handling, to purify the in-game environment
- Responsible for formulating abnormal user identification and handling strategy, evaluating the accuracy and effectiveness of the intervention result, reducing the proportion of affected normal players from 10% to less than 1%
- Collaborated with cross-functional teams, assisting in streamlining the engineering processes for real-time feature handling, constructing offline feature extraction and processing module, and extracting user behavior features

# **Distributed Processing of AI Training Samples** (Python, SQL, PySpark, Spark, Hadoop)

- Responsible for building a training sample conversion tool based on the PySpark framework, increasing conversion efficiency, reducing the communication cost and offline sample conversion time between the algorithm and engineering teams from approximately one week to 30 minutes; the tool was promoted to four team members and applied to more than 10 different gameplay modes of the game product
- Improved the team's data transmission security and compliance, ensuring data warehouse tables and cluster data processing did not leak
- sensitive information and avoiding the risk of data breaches Organized and hosted a working group sharing seminar, promoting the tool framework for use by other teams

# **Projects**

# SLG Game User Profile System

BEIJING | 2022

Enlisted in the AI R&D team of the strategy game project. Designed the AI character profile system, which diversifies AI's characters and behaviors for replacing churn users, reducing marketing costs and enhancing the gaming experience

### Education

# Rochester Institute of Technology

NewYork • USA | 2016.08 - 2021.05

M.S. in Computer Science (GPA 3.50/4.00)

- Advanced Graduate Certificate in Big Data Analytics
- Relavant courses: Data Structures and Algorithms, Object-Oriented Programming, Intro to Big Data, Data Mining, Database System Implementation, Web Service & Service Oriented Computing, NLP Text Mining

M.S. in Game Design & Development (GPA 3.28/4.00)

# Chengdu University of Information Technology

CHINA | 2012.09 - 2016.06

B.Eng. in Electronic and Information Engineering

### Skills

- ●Language: SQL, Python, XML, Java, C/C++, C#, Clojure, HTML
- ●Frameworks: Spark SQL, MLlib, Scikit-learn, Pandas, NumPy, Ray Cluster, XGboost, TensorFlow, Keras, Matplotlib
- ●Tool & Concept: Spark, Hive, Impala, Zeppelin, Hadoop, Linux, Shell, AWS, MySQL, MongoDB, Git, GitHub, REST, OOP, AP, AB Test
- Other: Fluent in English