

Topic 2-1: Likelihood Construction and Estimation

Univariate Models

Department of Experimental Statistics, Louisiana State University

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Content

Discrete IID Random Variables

Multinomial Likelihoods

Continuous IID Random Variables

Mixtures of Discrete and Continuous Components

Proportional Likelihoods

The Empirical Distribution Function as an MLE

Likelihoods from Censored Data



Contents

- 1 Introduction
- 2 Literature Review
- 3 Research Questions
- 4 Study Area and Data
- 5 Methodology



Contents

- 1 Introduction
 - Problem Statement
 - Importance of the Research
- 2 Literature Review
- 3 Research Questions
- 4 Study Area and Data
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Problem Statement



Problem Statement



Problem Statement

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Importance of the Research



Importance of the Research



Importance of the Research

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- 1 Introduction
- 2 Literature Review
 - Prior Work
 - Limitation
- 3 Research Questions
- 4 Study Area and Data
- 5 Methodology



Prior Work

- MapReduce[**dean2008mapreduce**]



Prior Work

- MapReduce[**dean2008mapreduce**]
- AlphaGo[**silver2016mastering**]



Prior Work

- MapReduce[**dean2008mapreduce**]
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Limitation



Limitation

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Research Questions



Research Questions

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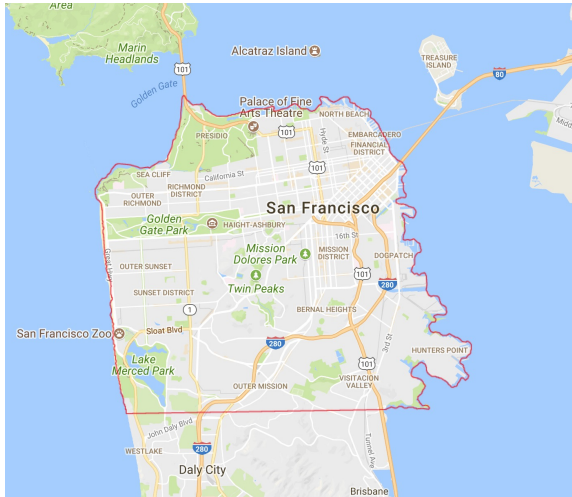


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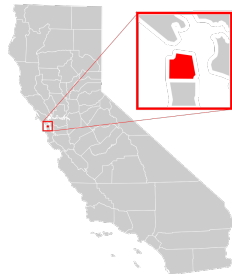
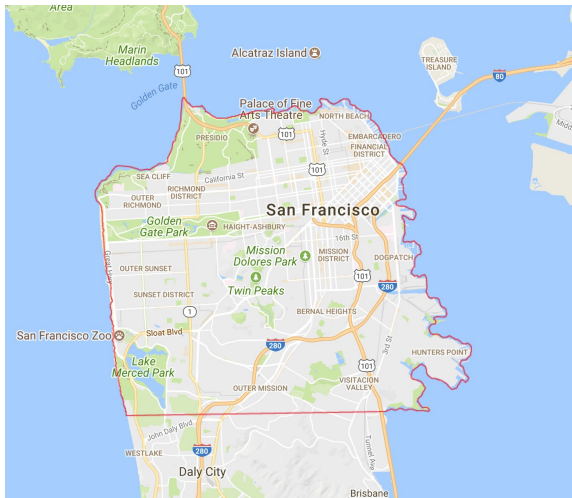
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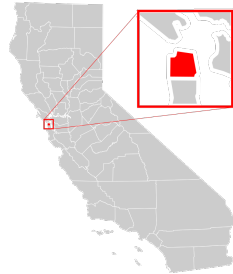
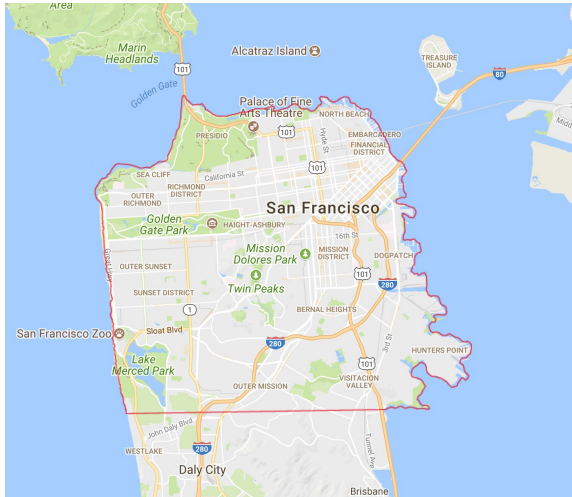
City and County of San Francisco



City and County of San Francisco



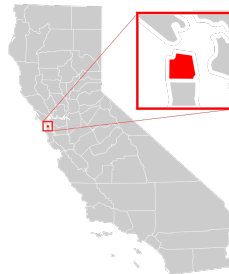
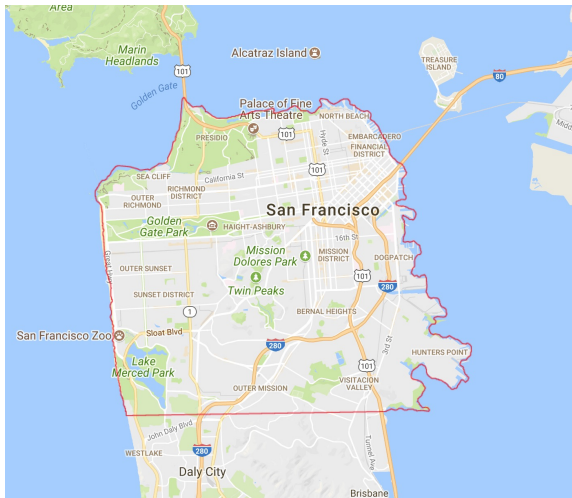
City and County of San Francisco



■ Population: 864,816 (2015)



City and County of San Francisco



■ Population: 864,816 (2015)

■ Land Area: 46 mi^2



Datasets

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Dataset 3



Dataset 4



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Datasets

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 - Design of Framework
 - Trainging
 - Validation



Design of Framework



Design of Framework



Design of Framework

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Training



Training



Training

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Validation



Validation



Validation

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References



Thanks!

