# Xiaohan Liu

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#### **Education**

**Syracuse University** 

Syracuse, NY 13210

08/2019 - 05/2021

• Coursework: Natural Language Processing, Introduction to AI, Object Oriented Design, Principles of Operating Systems, Android Programming, Introduction to Database, Social Media & Data Mining, Design & Analysis of Algorithm

**Tianjin University** 

Tianjin, China 300350

09/2015 - 07/2019

**B.S.** Applied Chemistry

M.S. Computer Science

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• Computation in Pd-Catalyzed Cross-Coupling Reaction

**Technion - Israel Institute of Technology** 

Haifa, Israel 3200003

08/2018 - 09/2018

**Exchange Student** 

• Coursework: Introduction to Machine Learning

#### **Skills**

## **Programming Language**

• C/C++, Python, Java, HTML/CSS/JavaScript, Kotlin, Bash

# Framework & DevOps Tools

• NodeJS, Express, MSSQL, MongoDB, Bootstrap, JQuery, DOM, REST, Git, Virtual Box

## Experience

# **Amazon.com Services LLC**

Seattle, WA 98109

#### **Software Development Engineer, Identity Services**

06/2021 - Now

- Implemented the package including kinds of authentication and authorization signals based on the OAuth 2.0 Framework.
- Created the signal handler client interface, realized the function of publishing signals to specific AWS SNS topic by encapsulating AmazonSNS client.
- Collected signals during post-AuthN and pre-AuthZ. Published signals to specific channel. Realized the target of detecting high risk authorization.

#### Beijing PipePlus Technology Co., Ltd.

Beijing, China 100089

#### **Software Engineer Intern**

07/2018 - 08/2018

- Utilized Matrikon OPC simulation server, adjusted related parameters to generate random oilfield industrial
- Wrote scripts to test the NoSQLt database APIs, connected simulation server with database, verified the accuracy during the data transportation.
- Realized real-time reading, writing and viewing historical trends functions by the APIs, helped to optimize automation database management over 600 miles oil and gasline pipeline
- Packaged scripts into a class, created a client by Matrikon APIs, which commuicated between Matrikon OPC and NoSQLt database.

# **Selected Projects**

## Sentiment Analysis of Presidential Candidates Twitter Comments (Repo)

10/2020 - 12/2020

- Wrote python scripts and called Twitter Developer API to collect the real time comments under the presidential candidates' tweets. Generated \*.csv files with user account and comment text.
- Used TextBlob and nltk packages, preprocessed the text, computed the polarity as a key feature, andomized and balanced dataset.
- Generated histogram figures, boxplot figures, wordCloud figures etc, analyzed the most positve and negative for respective candidates.

### **RGB Color Guessing Game (Demo)**

7/2020 - 8/2020

- Wrote HTML files to construct the whole structure of the game page with title and comments of how to play, used CSS files to embellish the play interface.
- Created buttons and stripes for some player settings and gave some blocks to hold different RGB colors.
- Programmed in JavaScript to interact with players, designed the part of mode choice and restart, achieved the whole game logic.