# Bing (Nina) Lin

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#### **EDUCATION**

**University of California, Los Angeles** 

Los Angeles, CA

B.S Mathematics of Computation GPA: 3.6

Expected Graduation: April 2021

Honors: Dean's Honors List

Cañada College

Redwood City, CA

A.S Computer Science and Mathematics GPA: 3.85

August 2017 - June 2019

Honors: Dean's Honors List, Phi Theta Kappa (PTK)

Coursework: Data Structures, Algorithms and Complexity, Discrete Mathematics, Linear Algebra, Numerical Analysis,

Network Analysis, Probability and Statistics, Artificial Intelligence, Computer Graphics, Machine Learning

#### **SKILLS**

Programming: C++, C, Java, Python, JavaScript, HTML, CSS

Framework and Tools: Git, React.js, Node.js, Express.js, Vue.js, MongoDB, SQL, Streamlit, Numpy, pandas, Matplotlib, Qt Creator, IntelliJ, Xcode, Jupyter Notebook

#### **EXPERIENCE**

### Research Intern | UCLA Department of Mathematics

Los Angeles, CA | March 2020 - June 2020

- Collaborated with three team members to evaluate network structures and the information ecosystem of Twitter with a labeled dataset of over 100k users from Kaggle
- Conducted community detection and visualized interactions with the Louvain Method, PageRank algorithm, and HITS algorithm using Python programming, NetworkX, and Gephi to identify the top influential groups
- Performed influence estimation on specific groups based on user behavior analysis and hashtag content analysis

#### Web Development Intern | Chenyang Auto Trade Co. Ltd.

Hebei, China | June 2019 - August 2019

- Cooperated in a development team of four, responsible for UI functionality testing and front-end development
- Re-designed the portal of Chenyang Auto to provide better support of product searching and listing and achieve a more user-friendly website and that has increased the number of clicks by 25% over a month
- Restructured the ABOUT page with JavaScript, HTML, and CSS to improve consistency of client-side user interface
- Developed a WeChat mini program serving information on local inventory and sales of 20+ local retail dealerships

## EPIC Leader & Tutor | Cañada College STEM Center

Redwood City, CA | December 2018 - May 2019

- Directed weekly workshop series with other EPIC leaders on Python and Matlab programming in mathematics and engineering research for over 30 STEM-major students in a 3-month long technical Bootcamp
- Conducted exam review sessions on discrete mathematics and data structures in C++ for a group of 20 students with positive reinforcement strategies and enhance the overall academic performance

## **PROJECTS**

### **Keeper | Project Task Tracking App**

September 2020 - Present

- Built a full-stack web app using React.js and Material-UI to help improve productivity with card-based task board
- Implemented a neat UI and UX to simplify the task management experience and achieve modernization
- Secured and persisted user data with MongoDB, allowing users to plan and manage responsibilities over time

## **Gold Miner | Single Player Puzzle Game**

January 2020 - March 2020

- Developed a desktop single-player puzzle game allowing users to perform gold-digging and mining actions with Qt
- Optimized code efficiency and cleanliness. Reduced game loading time by 12% through restructuring the scene transition framework to enhance the overall user experience
- Designed the item generating feature and reward system using Obj C++ to contribute a standardized, inheritable interface for all current and future character types

# NYC Crash Event Analysis | Dashboard Web App

January 2019 - April 2019

- Built a web page to analyze the distribution of motor vehicle collisions in NYC using Python and Streamlit
- Preprocessed dataset by data cleaning, categorical feature transformation, and feature correlation
- Analyzed feature importance of the data to identify top factors that influenced the results using pandas and Numpy
- Integrated with service platform and designed intractable visualizations for serving dynamic data using pydeck and plotly to prominent the accident hotspots as a reference for travel guides