# Thomas Tran

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# Technical Skills

Proficient: Javascript, C++, C, Java, Python CSS,C#, VBA,HTML

<u>Libraries/Frameworks</u>: React, Node.js, Angular, Bootstrap, Pandas, Mongoose, Postman, MongoDB, CSS Grid, JQuery, Passport.js, Express, socket.io

# Education

## **UC San Diego**

Major: Computer Science Expected: June 2020 GPA: 3.7 (3.694)

### **Relevant Courses:**

- **Advanced Data Structures**
- **Discrete Mathematics**
- **Operating Systems**
- Data Science in Practice
- Math/Algorithm Analysis
- Computer Organization and Systems
- **Software Engineering**
- Theory of Computation

#### Clubs and Hackathons:

- SD Hacks
  - AR 2nd Place 0
- Hack XR
  - Best Multiplayer Game
  - 2<sup>nd</sup> Place Overall
- Placed 1st in Article Innovations Hackathon

# Work Experience

# **Article Innovations**

Software Development Intern June - September 2018

- Took course on full-stack development with Node.js, MongoDB, and git
- Learned and practiced agile scrum development process Worked on a cross-functional team of data scientists and software developers
- Implemented robust Data Layer which manages API calls and data caching which provides faster analyzer run times
- Designed and implemented frontend of KPI Dashboard and a backend REST API to communicate sales and other key performance indexes

## **California Institute of Biomedical** Research

Software Development Intern June-September 2017

- Built and maintained frontend of company internal website UI using Javascript
- Improved drug dispensing calibration software using C sharp through an improved GUI and text editor

# **Projects**

#### **Article Innovations KPI Dashboard** June 2018 - September 2018

- Implemented REST API to display key performance data and communicate to a python microservice using Javascript, and Express.js
- Used Helmet.js, express-session, and mongo-connect to sanitize requests and ensure cookie usage was safe and scalable.

  Implemented and designed using a MEAN stack

  Designed dashboard page using Bootstrap and Angular

### **Article Innovations Data Layer** June 2018 - September 2018

- Designed and Implemented robust and stateless data layer backed by priority queues to manage and cache API calls
- Using Javascript, express.js, and MongoDB, the data layer provides a REST API to streamline API requests and allow for a more flexible backend design

#### San Diego Streetlight Analysis March 2018

- Ran a statistical analysis of street light effectiveness in San Diego using Python, geocoder, pandas, and numpy
- Provided insights and visualizations to suggest potential causes of collisions in

### **Text Auto Completer** January 2018

- Wrote program in C++ that returns auto-completed text suggestions when provided text reference data
- . Used ternary search tree data structure to store the input dictionary

### **Markov Document Generator** February 2018

Implemented Dijkstra's algorithm in C++ to find connections between actors and graph theory to predict potential links between them

#### **Link Predictor - Actor Interactions** March 2018

Wrote program in C++ that creates a new document using Markov Chain process based on an input reference file