Caleb (Yong) Zhou

San Jose, CA | yesyong@bu.edu | +1 (718) 813-4377 | LinkedIn | Github

EDUCATION

Boston University *(Graduated: Jan 2020)* Dec 2017 – Jan 2020
Bachelor of Computer Science

- Related courses: Applied **Java** in data structure, Algorithm, MySQL, Computer Programming, Tool of Data Science in **Python,** OOP system in **C++,** Full Stack Dev in **JavaScript,** Tool of Data Science in Pandas, NumPy, Kmeans, SVM

EXPERIENCE

Software Development Intern, *AEVEX Aerospace* May 2019 – Aug 2019
Tools: Python, TensorFlow, CNN, Deep Learning

- Extended Mask R-CNN model for the detection and segmentation of infrared images with fires for replacing helicopter discovery by drone's detection that would reduce **50%** budget per month
- Outperformed **85%** overlay with ground truth on test data set and customized in collecting labeled samples and tune **R-CNN** parameters in improving classifier performance
- Implemented Python scripts to standardize the JSON file's input format to fit the requirement of the model for the grand-truths

Web Development Intern, *BCTC technology* Sep 2017 – Jan 2018
Tools: **Node.js**, **Restful** API, MongoDB, JQuery.js, **ES6+,** Bootstrap, React.js, HTML, CSS, **Git**

- Implemented dynamic websites for real estate agents using JavaScript and generated 4 Million in total growth per year by devising different server-side and client-side development techniques
- Designed user login via third-party Oauth protocol using passport.js library to look up user info, create profiles and decode cookies
- Created a MongoDB schema to save and query data and designed **Restful** API to exchange data between clients and database

Undergraduate Researcher, *NSF* Jun 2017 – Sep 2017
Tools: Python, RapidMiner, Machine Learning (Topic Modeling), Scikit-Learn, Excel

- Achieved data cleaning and business logic to derive customers and products departmental KPI
- Identified driving factors (customer purchase frequency, monetary decision, etc.) for downstream analysis and modeling for Customer churn statistics prediction
- Developed Cross-validation that outperformed the baseline model by **4%** to improve the supermarket decision making

PROJECTS

Healthy Tracking Application (**Android App**) | Boston University Nov 2019
Tools: Java, Google Fit API, Google Map API, **Redis, AWS** Lambda

- Designed a multi-functional **Android** app to record motion data and obtain friends' real-time location and health status, implemented a room chat for based on it
- Achieved real-time location update by utilizing AWS lambda, Redis, Google Map API and Android services
- Utilized Google Fit API to obtain users daily steps and calories and store it in Firebase

Web Development on Shopping Cart | Boston University Sep - Nov 2018
Tools: Node.js, Stripe API, Handlebar.js, MongoDB, Express.js

- Designed and Created online shopping cart for our users to display, save, check out and make payments on products
- Applied and Implemented the MVC principle to self-thought by researching and planning logically

Data Analysis on Tesla Inc's Stock and Media | Boston University Dec - Nov 2018
Tools: **R**, Python, NLP, Shiny, AWS

- Evaluated effects of media sentiment on the predicted price of Tesla stock using regression analysis
- Delivered real-time insights to help beginners and professionals trade through Shiny app deployed on AWS

Role-Playing Game (**C++**) Dec 2016

- Designed zombies vs. human role-playing video game with multiple files, classes, and modules containing different functionalities
- Applied OOP principle to encapsulate functionalities and make implementation extensible and reusable

SKILLS

- Framework: AWS, PowerShell, React.js, Linux
- Programming: Java, Python, PHP, C++, Perl, Node.js, MySQL, React Native
- Database: MongoDB, MySQL, NoSQL, Redis, Hadoop, Spark
- Hobbies: Reading, Guitar player, Cooking