Caleb (Yong) Zhou

**San Jose, CA |** [**yesyong@bu.edu**](mailto:yesyong@bu.edu) **| +1 (718) 813-4377 |** [**LinkedIn |**](https://www.linkedin.com/in/yong-zhou-03149b106/) [**Github**](https://github.com/YongLAGCC)

# 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, 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](https://github.com/YongLAGCC/fangsosou_documents), *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](https://github.com/YongLAGCC/Customer_Churn_Prediction), *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](https://github.com/YongLAGCC/cs591_mosso)(**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](https://github.com/YongLAGCC/Shopping-Cart) **-** 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](https://github.com/YongLAGCC/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, React.js, Spring, Linux, PowerShell
* Programming: Java, Python, C++, Node.js, MySQL, React Native
* Database: MongoDB, MySQL, NoSQL, Redis, Hadoop, Spark
* Hobbies: Reading, Guitar player, Cooking