

Yong (Caleb) Zhou

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EDUCATION

Boston University (Graduated: Jan 2020)

Dec 2017 – Jan 2020

Bachelor of Computer Science

- Related courses: Applied **Java** in data structure, Algorithm, SQL | 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

WORK EXPERIENCE

Software Development Intern, *AEVEX Aerospace*

May 2019 – Aug 2019

- ♦ Tools: Python, Machine Learning, TensorFlow, CNN
- Created Mask R-CNN model for the detection and segmentation on infrared images with fires for replacing helicopters detection 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 input format of JSON file to fit the requirement of the model for the grand-truths

Web Development Intern, *BCTC technology*

Sep 2017 – Jan 2018

- ♦ Tools: **Node.js**, MongoDB, JQuery.js, **ES6+**, Bootstrap, React.js, HTML, CSS, **Git**
- Implemented dynamic websites for real-estate agent using JavaScript and generated 4 Million in total growth per year by devising different techniques in server-side and client-side development
- Implemented user login via third-party OAuth protocol by using passport.js library to look up user info, create profiles and decode cookies
- Created a MongoDB schema and module to save data in our data base and display products on different thumbnails to clients

Big Data Developer and Undergraduates Research, *NSF*

Jun 2017 – Sep 2017

- ♦ Tools: Python, RapidMiner, Machine Learning (Topic Modeling), Scikit-Learn, Excel
- Implemented 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 and Created an Android app to track user's and their friends' daily steps and health status
- Implemented the backend services for saving and broadcasting the running statistic (e.g. steps and locations, etc.)

Web Development on Shopping Cart

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 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, Shiny, NLP, Machine Learning, 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 a 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

- IDE: Eclipse | Visual Studio | Android Studio | Visual Studio Code | Jupyter Notebook | PyCharm | Dr. Java | RStudio
- Programming: Java | Python | C++ | Node.js | React.js, Express.js | MySQL | Linux | Amazon Web Services | React Native
- Database: MongoDB | MySQL | NoSQL | Redis | Spark | Distributed Hash Tables
- Hobbies: Reading | Guitar player | Cooking