

# Yong (Caleb) Zhou

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<https://github.com/YongLAGCC>

Highly-talented senior student with solid foundation in programming development, seeking to leverage my analytical skills as a full-stack software engineer job.

## WORK EXPERIENCE

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### Deep Learning Software Development Intern, AEVEX aerospace May 2019 – Aug 2019

- Established Mask R-CNN model for the detection and segmentation on infrared images with fires, and deployed various custom object detection models on Jetson Nano development Kit by tested and trained models on Linux and Windows
- 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
- Designed and implemented a button-based feature to automatically extract coordinates of classified fire-area polygons by **C#** on GeoFOCIS

### Software Web Development Intern, BCTC technology Sep 2017 – Jan 2018

- Collaborated with 3 other experienced software developers in **Node.js framework** and **MongoDB**
- Established User Login by third-party **Oauth**, integrated passport.js library to look up and create user info, decode cookies
- Developed online Chatting functionality with bi-directional data flow by setting up Socket.io between client and server sides
- Created MongoDB module, schema to save data in our database and display products on different thumbnails to clients
- Designed and imitated several web pages in HTML, CSS, JavaScript, JQuery and Bootstrap, React by our clients' preference

### Big Data Developer and Undergraduates Research, NSF Jun 2017 – Sep 2017

- Customer churn statistics prediction for supermarket using SciKit-Learn Machine Learning with Python and RapidMiner
- Filtered and implemented analytics logic and calculated features like customer purchase frequency, monetary consideration and volume on 1.5 years of data
- Trained Random Forest model and used 5-fold cross validation model and achieved 93% accuracy against 89% of an old Logic Regression model
- Utilized data exploratory data analysis to determining driving factors customer behaviors

## PROJECTS

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### Bomberman 3D Game on Unreal Engine 4 Apr 2017 – May 2017

- Worked with 2 other developers to develop a 3D version Bomberman from scratch using **Unreal Engine 4**
- Created game playing AI for in-game characters using 3D blueprints graph
- Established the logic behind and animating, such as planting, exploding, and animating the bombs

### Role-Playing Game (C++) Dec 2016 – Dec 2016

- Implemented zombies and human role-playing video game with multiple files, classes, modules by different functionalities
- Applied **OOP** principle to encapsulate functionalities and make implementation extensible

## SKILLS

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- Python, **Java**, **C++** (4 yrs), JavaScript, R, Passport.js, HTML, CSS, MongoDB, Firebase, SQL, Git
  - IDE: Eclipse, Visual Studio, Android Studio, Visual Studio Code, Jupiter Notebook, PyCharm, Dr. Java
  - Experienced in Programming in Linux environment, Android application programming, Front-end with React

## EDUCATION

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### Boston University (*Expected graduation date: Jan 2020*) Jan 2018 – Dec 2019

Bachelor Science of Computer Science

Major GPA: 3.35 / 4.0

- **Related course:** Python development of services and tools in analysis, AI platform, applied Java in data structure & SQL, OOP system in C++, Java, **SQL**, **Hadoop NoSQL** (Relational, semi-structured XML, **JSON in Java**)

### LaGuardia Community College, CUNY Mar 2016 – Dec 2017

Computer Science

GPA: 3.88 / 4.0