Yong (Caleb) Zhou

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Highly-talented senior student with solid foundation in software programming development, seeking to leverage my coding and analytical skills as a software engineer intern.

WORK EXPERIENCE

Deep Learning Software Development Intern, AEVEX aerospace   **May 2019 – Aug 2019**
- Established Mask R-CNN for the detection and segmentation on fire images of infrared on Jetson Nano development Kit
- Modified the R-CNN input layer of output layer to fit the training of fire images and prepared to put on the GeoFOCIS map
- Labeled and trained with GPU about 3000 infrared images of fires from videos to get above 80% overlay with ground truth
- Wrote Python scripts to generate a JSON file for the inputting of the model and tested
- Assisted and designed buttons from labeled fires images and generated labeled images polygon axises 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

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

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

EDUCATION

Boston University *(Expected graduation date: Dec 2019)*   **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