Max Lord

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EDUCATION

University of California, Berkeley – Fall 2018-Present

- Computer Science Major with a 3.85 GPA; joined Upsilon Pi Epsilon (Top 1/3 of CS Majors)
- Proficient in Python, Java, iOS and Android App Development with experience using C, C++, and JavaScript, as well as a strong background utilizing Git and SVN for version control
- Participating in Berkeley's Student Advocate Office, including managing and adding new features to a Django-based web application case tracking system as well as acting as an advocate/caseworker

WORK EXPERIENCE

Capital One, Incoming Software Engineer Intern – McLean VA, June-August 2020

BAE Systems, Software Engineer Intern – Washington DC, May-August 2019

- Rewrote client's financial system to replace a deprecated framework with jQuery in 100+ files
- Used Red Hat's Hibernate ORM to interact with system database and performed calculations on the retrieved data in the Java-based application back-end
- Proposed technical and design improvements to an internal software issue tracker tool to facilitate increased collaboration between different company teams

Remora Systems, Co-founder – McLean VA, December 2015-Present

- Developed a patent-pending secondary airplane data transmitting device and programmed an app to wirelessly receive the device flight data and display the data on augmented reality glasses
- Tracked flight data and uploaded it to a cloud server to examine characteristics of good flights
- Won $25,000 Experimental Aircraft Association Founder's Innovation Prize

Conservation X Labs, Engineering Fellow – Washington DC, June-August 2017

- Responsible for developing innovative technology-based solutions to environmental problems
- Prototyped a next-generation camera trap powered by a Raspberry Pi 2 equipped with solar power, computer vision, and remote access for conservation biology researchers
- Used the OpenCV library to recognize and identify different species of animals in the wild

PROGRAMMING PROJECTS

LSTM Stock Market Predictor (https://github.com/maxqlord/lstm-stock-predictor)

- Used TensorFlow to implement a recurrent neural network in Python to predict stock prices

Orbital Mechanics (https://github.com/maxqlord/Parallel-Computing/tree/master/OrbitalMechanics)

- Modeled a rocket's free return orbit in C by deriving minimum speed, distance of burn from Earth, and optimal launch angle; used MPI to solve the problem in parallel with a supercomputer cluster

Ray Tracing (https://github.com/maxqlord/Parallel-Computing/tree/master/RayTracing)

- Implemented a ray tracing engine in C to render shadows, textures, and reflections on simple 3D objects

MyLocality (https://github.com/maxqlord/MyLocality)

- Programmed an Android app to suggest music to users based on current location; used Spotify's API to create playlists, Firebase's Authentication and Database APIs to handle user logins and data storage; also used Google Play Services' location and geocoding API to link the user's location to popular local music

Forest Fire Model (https://github.com/maxqlord/Parallel-Computing/tree/master/ForestFire)

- Applied a forest fire growth model in C to display fire development based on expansion probability, displaying the efficacy of various firefighting techniques; used MPI to run the program in parallel

Article Summarizer (https://github.com/maxqlord/article-summarizer)

- Scraped online news articles and implemented the tf-idf text mining algorithm to provide a relevant summary of the article to the user

Gitlet (Private repository access on request)

- Recreated local Git features in Java including adding/removing, committing, resetting/reverting, branching, merging, merge conflict resolution, and serialization for data persistence

Pacman AI (Private repository access on request)

- Created a Pacman AI with numerous different artificial intelligence techniques including minimax, expectimax, reinforcement learning, Bayes nets, and hidden Markov models