Randall Williams

https://github.com/rgw17
Eagle Scout
US Citizen

Education

Los Angeles, CA

University of Southern California

December 2021

• B.S. Computer Science and Business Administration, Junior.

Coursework: Data Structures, Object-Oriented Programming, Algorithms, Software Engineering, Artificial Intelligence, Discrete Math, Business Statistics.

Experience

Software Teaching Assistant

USC Viterbi School of Engineering

Aug 2020 - Present

Los Angeles, CA

- Course Producer (undergraduate TA) for CSCI 201: Principles of Software Development (Java).
- Hold office hours and develop coursework for 200+ students.
- Grade labs and programming assignments.

Software Engineer, Intern

US Department of Defense

Jun 2020 - Sep 2020

Remote

- Employed by the National Security Innovation Network for the X-Force Fellowship program.
- Created a Unity application for Marine Corps Air Station Miramar that replays training data in a 3D environment for mission debriefing.
- Designed desktop standalone that inputs GPS and weapon orientation data to be simulated with the Google Maps API and C#.
- Developed a proprietary time-syncing file management tool in Python.

Projects

Synthetic Dataset Generator (ongoing) Python, Sklearn, Pandas, Unity

- Building a tool to generate and automatically tag large, diverse training datasets for machine learning inference.
- Reduces cost and increases speed of ML algorithm development where available ground-truth training data does not cover the full range of conditions the ML agent will encounter.

Instagram Spam Detector

Python, Numpy

- Predicts with up to 90.33% accuracy whether an Instagram account is spam or not, learning from Kaggle datasets.
- Implemented a Naïve Bayes classifier, optimized with Laplace smoothing and gaussian distribution for continuous features.

Stock Portfolio Manager

HTML/CSS, Bootstrap, Javascript, Java, Firebase

- Built a portfolio management and tracking application. Part of CSCI 310 group project.
- Recent stock information retrieved from APIs for continual updates and analysis.
- Created JUnit and Selenium testing scripts for black and white box testing.

Skills

Languages: Python, Java, C#, JavaScript, SQL, noSQL

Frameworks/libraries: Scikit-learn, Pandas, Numpy, JUnit, Mockito, Servlets

Technologies: Firebase, Google Cloud Platform, Amazon Web Services, Unity, Git, Agile development