Clarence Chan

1314 Buckthorne Way, San Jose, CA 95129 | Github: clarencechan28
cchan125@umd.edu | LinkedIn: linkedin.com/in/clarence-chan

Education

University of Maryland ***College Park, MD***
B.S. in Computer Engineering – GPA: 3.33 *Expected May 2021*
Relevant Coursework: Object-Oriented Programming, Digital Logic Design, Computer Systems, Discrete Signal Analysis, Analog and Digital Electronics, Data Structures, Algorithms

Technical Skills

- **Programming Languages**: **Java** – Proficient, **C** – Proficient, **Unix** – Proficient, **Python** – Proficient, **SQL** – Beginner, **Assembly** – Beginner, **Ruby** – Beginner, **OCaml** – Beginner, **Rust** – Beginner
- *Other Technologies: GDB/Valgrind* – Proficient, *MATLAB* – Intermediate, *Django* – Intermediate, *Elasticsearch* – Intermediate, *Verilog/HDL* – Beginner, *Apache Spark* – Beginner, *Apache Nifi* – Beginner
- Certified Data Engineer on Google Cloud Platform

Work Experience

Exaleap ***Santa Clara, CA***
Software Engineering Intern *May 2019 to August 2019*
- Created a searchable email database with Elasticsearch for an internal communication platform for employee productivity and to improve transparency.
- Used the Django framework to host the backend and use HTTP requests to search the Elasticsearch database.
- Implemented a sentiment analysis feature for the search engine which calculates the average sentiment of a keyword across the entire database for market research and to analyze the market's perspective about the main product.
- Utilized Apache Spark to detect common words in emails to determine important project names or other nouns and calculated the average sentiment for each common word.

Deep Brain Neurotechnologies – UMD ECE Department ***College Park, MD***
Undergraduate Research Fellow *January 2018 to May 2019*
- Collaborated with neurologists and other experts at the University of Maryland Medical Center (UMMC) on projects such as a magnetic steering helmet or fMRI analysis with neural networks to investigate neurodegenerative diseases.
- Ran simulations on Sim4Life, an electromagnetic solving software provided to us by Zurich MedTech, for several different types of deep brain stimulation the MIDA model.

NEC Laboratories, Inc. ***Cupertino, CA***
Research Assistant *June 2018 to August 2018*
- Annotated features in training data for an object detection algorithm that uses neural networks to be able to differentiate people in image and large amounts of video frame data.

Projects

Utilization of Magnetic Steering for Non-Invasive Deep Brain Stimulation *August 2018 to December 2018*
- Developed a model for an array of low frequency-emitting electromagnetic coils in Sim4Life using Python scripts.
- Collaborated with other research fellows to run simulations of the coils stimulating a model of a human head to investigate its applications towards deep brain neuromodulation.

MemberManagementSystem *May 2017*
- Developed a Java program with two other team members to help manage club member data with RFID technologies and utilized the Google Drive ReST API to store member data.
- Documented all of the program's classes and data structures throughout the entire software development cycle.