

EDUCATION

Bachelor of Science, Computer Science

Jun 2017 – Dec 2020

University of California, Santa Cruz – 3.78 GPA

EXPERIENCE

IBM | Software Development Intern

Jun 2019 – Sept 2019

- Developed tools to automate evidence collection for security audits in IBM Cloud
- Built a tool to detect security guideline violations in Active Directory using Python-LDAP
- Created a script to monitor audit health and identify bottlenecks using Jira-Python and Elasticsearch DSL
- Accelerated issue response time by 80% by automating progress reports through JIRA, email, and a webapp

Second Harvest Food Bank | Software Engineering Intern

Apr 2019 – Jun 2019

- Developed and deployed a mobile-ready webapp for matching users with nearby foodbanks using Flask
- Integrated with Google Maps to visualize food bank distance and quickly generate directions
- Integrated with Google Calendar, allowing non-technical employees to update food bank locations and times
- Coordinated with Second Harvest to establish project specifications and timelines

SELECTED PROJECTS

Project Release Dashboard | Javascript, React, Node.js, Express

Jul 2019 – Aug 2019

- Deployed a webapp for monitoring public reception to project releases and identifying desired changes
- Integrated with Twitter and Reddit to source data, and employed Watson NLP to derive actionable data
- Presented finished product to IBM executives for market and internal applications

Distributed Data Storage using Docker Containers | Python, Flask

Mar 2019 – Jun 2019

- Built a remote storage solution that allows Docker containers to store key-value pairs
- Created a REST API using Flask for client communication and message broadcasting
- Implemented a data sharding system, which allowed the system to scale linearly in capacity and throughput
- Ensured crash tolerance through data replication and automated data resharding
- Developed a message versioning system to enforce causal consistency between messages

Search Engine | Python, NLTK

Feb 2019 – Mar 2019

- Designed a system that answers a question by returning the most relevant excerpt from a library of text
- Implemented natural language processing techniques such as dependency parsing and word lemmatization
- Added a question classification system that applies different rulesets for answer selection
- Developed a discourse model for associating pronoun sentences with their appropriate noun

Sentiment Analysis Discord Bot | Node.js, Flask, NLTK, SciKit Learn, SQLite

Sept 2018 – Jun 2019

- Implemented a Discord bot designed to promote positive user engagement by rewarding points
- Trained Decision Tree, Naive Bayes, and SVM models to classify user sentiment using NLTK and SciKit Learn
- Increased classification accuracy by 60% by improving feature selection with techniques such as lemmatization
- Optimized memory usage by 75% by automatically processing messages after certain conversation triggers

ACHIEVEMENTS

HackACM 2019 3rd Place Winner | Python & Flask

Apr 2019

Built a class lookup service for both web browsers and Amazon Alexa voice assistants

HackACM 2018 Student Utility Category Winner | HTML, CSS, & Bootstrap

Mar 2018

Created a mobile website to connect incoming UCSC students with campus resources and activities

SKILLS

Languages: Java, Python, Javascript, C, HTML, CSS, Assembly, SQL, MATLAB
Technologies: React, Node.js, Flask, Express, Bootstrap, Swing, NLTK, Scikit Learn
Software & Tools: Git, Docker, Postman, Elasticsearch, Kibana, Linux