

## EDUCATION

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### Bachelor of Science, Computer Science

June 2017 – June 2020

University of California, Santa Cruz – 3.78 GPA

## EXPERIENCE

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### IBM | Software Development Intern

June 2019 – September 2019

- Developed tools to automate evidence collection for security audits against IBM Cloud IaaS
- 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

April 2019 – June 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

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

July 2019 – August 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

March 2019 – June 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

February 2019 – March 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 | Javascript, Node.js, & SQLite

September 2018 – June 2019

- Implemented a Discord bot designed to promote positive user engagement by rewarding points
- Optimized memory usage by 60% by automatically processing messages after certain conversation triggers
- Deployed on Raspberry Pi with automated crash recovery

## ACHIEVEMENTS

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### HackACM 2019 3<sup>rd</sup> Place Winner | Python & Flask

April 2019

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

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

March 2018

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

## SKILLS

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