Nathaniel Tjandra

415-606-0787 • tjandranathaniel@gmail.com

Education

University of California - Santa Cruz, California   *Graduated June 2020*
Bachelors of Science in Computer Science
GPA: 3.4

Work Experience

Software Engineer at SEADS, Santa Cruz, CA   *January 2020 - Present*
Developing software to perform analysis on household voltages to improve outage detection in rural areas, created in partnership with the Resilient Renewable Efficient Energy Systems Lab at UCSC.
- Making an API for device registry, device view on a map, and power outage reports and logs.
- Creating email automation flow to detect anomalies and send outage notifications to users.
- Simulation of scenarios for system tests on notifications to test scalability and load balancing.
- Presented posters, presentations, diagrams, and documentation as a panelist for *Partner's Day*.

Researcher at CROSS, Santa Cruz, CA   *July 2020 - Present*
Contributor to the Center of Research in Open Source Software (CROSS) Skyhook Data Management Project to extend the Python API functions for row based optimization and horizontal scaling.
- Developing an ETL Layer: Extract input files, transforms into Tables, and loads them into buckets.
- Implementing a flatbuffer metadata wrapper to store and sort partitions of data based on mapping.
- Testing optimization and data storage across multiple machines running CentOS or Ubuntu.

Projects

SuppCheck   *January 17-19, 2020*
Hackathon project that allows users to look up health benefits of ingredients in fitness supplements.
- Integrated Google's Cloud Vision API to convert images of containers to be machine-readable.
- Invented a parsing algorithm to spell check and categorize ingredients into organic versus chemical.
- Managed a Cloud SQL Database with over 30,000 chemical compounds and information on benefits.

RentMyJunk   *August 2019 - January 2020*
Web platform that aims to reduce waste by connecting users that want to rent out excess unused goods.
- Deployed website using AWS and managed the EC2 Instance.
- Built CRUD API endpoint for account management, rental posting, and reviewing or reporting users.

Technical Skills

Software Testing	Travis CI, Git Actions, Postman API, Docker
Software Frameworks	Flask, React, Node.js, Jekyll, Bootstrap
Database Experience	PostgresSQL, MySQL, Firebase, MongoDB
Programming Languages	Python, C/C++, Java, JavaScript, HTML/CSS,

Achievements

SuppCheck Second Place in Health Hack Category at CruzHacks 2020
SuppCheck Runner-Up for Best Use of Google Cloud at CruzHacks 2020
Certified C++ Programmer from the City College of San Francisco