RACHEL PHAM

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EDUCATION

University of California, Santa Barbara   **Expected Graduation: 2024**
B.S. Data Science, Computer Science Concentration   **GPA:** 3.72

University of California, Riverside   **2020 - 2022**
B.S. Computer Science

PROFESSIONAL EXPERIENCE

Northrop Grumman   **San Diego, CA**
Software Engineer Intern   *June 2023 – Aug 2023*
- Developed a **financial analysis tool** using Xlwings, XlsxWriter and OpenPyXL **Python** libraries that parses through .xlsx files with 3000+ lines of numerical data to aggregate data and generate visualizations, increasing manager's analysis efficiency to review monthly performance by **98%**
- Automated the installation of **Elastic Stack** on a virtual host by writing **Ansible** scripts of Linux commands and unit tests, enabling real-time monitoring of data from virtual machines for a team of 30 engineers
- Designed the workflow of Elastic Stack's integration to the Virtual System Integration Lab (VSIL) architecture with flowcharts to improve security and performance

NASA JPL - International GNSS Service (IGS)   **Pasadena, CA**
Software Engineer Intern   *June 2022 – Dec 2022*
- Applied HTML/CSS, JavaScript, and Bootstrap 5 coupled with the **Django** Python framework to create a new version of the IGS Network Map web page (used by 130+ agencies worldwide) to retire old web architecture
- Created an interactive, vectorized 3D map using MapBox GL JS, linked to data from **700+** global navigation satellite system stations, and streamlined data filtering with DataTables plugin
- Conducted **user research** through interviews and usability testing to identify pain points and gather insights to design wireframes and high-fidelity prototypes of the webpage with **Figma**, which resulted in **70%** user satisfaction

Networked Configurable Command, Control and Communications Center   **Riverside, CA**
Software Engineer and Research Intern   *Mar 2021 – June 2022*
- Constructed a **K-Nearest Neighbors graph** from the MNIST dataset and experimented with different label flipping attacks (between the 50 lowest degree nodes, the 50 highest degree nodes, and nodes that were not flipped at all) using **Python**

Cubic Transportation Systems   **San Diego, CA**
Systems Test Engineer Intern   *June 2021 – Sept 2021*
- Tested a contactless card tapping system to pay for fares of Boston's public transportation services by verifying backend data (fare prices, trip ID, rider type) using SQL queries
- Created 50+ integration test cases using TestRail and executed end-to-end testing to validate banking fare policies

PROJECTS

DoughTracker | *React JS, MongoDB, Express JS, NodeJS, Firebase*   **Aug 2023 - Current**
- Developed a full stack expense tracker website with **MongoDB** schemas to support **CRUD** operations and Google user authentication with **Firebase**

Neural Networks Food Classification | *Python, TensorFlow*   **Mar 2023 – June 2023**
- Built three different types of **Convolutional Neural Networks** (MobileNet V2, Inception V3, ResNet 50), tested the models, evaluated the models' accuracy, and used the best model to predict the category labels of images found on the Internet

GauchoCourses | *Java, SpringBoot, REST APIs, HTML, JavaScript, CSS, Vue JS*   **Dec 2022 – June 2023**
- Developed a **class scheduling application** to visualize enrollment times and schedule courses as a backend developer
- Used with Google Calendar API to allow users to insert class events from UCSB's public curriculum API into their calendar

NextFlix | *React JS, Tailwind CSS, Python*   **Feb 2023 – Mar 2023**
- Developed a **Python** coded content-based recommendation system through natural language processing (**NLP**) topics such as TF-IDF vectorization and Sentence Transformers, presented through a web application

SKILLS

CLEARANCE: Secret
Languages : Python, C++, Java, HTML/CSS, JavaScript, R, SQL
Developer Tools : Visual Studio Code, Eclipse, Git, GitHub, Jira, Jenkins, Ansible, Node.js, Unity
Frameworks/Libraries : React JS, NextJS, VueJS, Django, Spring Boot, Express.js, MongoDB, Firebase