

GABRIEL MALLARI

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Education

University of Virginia

B.S. Computer Engineering, GPA: 3.9

Relevant Coursework: Software Development, Data Structures and Algorithms, Computer Architecture

Aug 2018 – May 2022

Charlottesville, VA

Experience

Software Engineer Intern

Capital One

Jun 2021 – Aug 2021

McLean, VA

Undergraduate Research Assistant

Riggs Lab, UVA

Feb 2021 – May 2021

Charlottesville, VA

- Developed VR selection task program to create different reaching task conditions and data outputs needed for study
- Synchronized kinematic data from **C#** program with Oculus motion tracking to determine movement trajectories
- Analyzed location, movement timings, and performance of target selection tasks in controlled lab environment using **Unity**

Software Engineer Intern

TRON Air Force

May 2020 – Aug 2020

Honolulu, HI

- Collaborated with team of 7 to develop training management application using **Spring, React, Postgres** and **Docker**
- Programmed REST API using **Spring Boot** and **Postgres** to store data of 38000+ military personnel and training events
- Implemented interactive spreadsheet for managers to oversee personnel training events using **React** and **TypeScript**
- Paved way for application to receive funding for deployment throughout entire Department of Defense

Undergraduate Research Assistant

Dependable Systems and Analytics Group, UVA

Aug 2019 – May 2020

Charlottesville, VA

- Programmed **Python** script using **numpy** and **pandas** libraries to optimize surgical error analysis of over 30 videos
- Analyzed error distributions of 6 surgeons and 120 video subtasks using **excel** to identify prominent surgical anomalies
- Contributed results to research paper and improved the safety and effectiveness of surgical patient care

Projects

HoosRooming | <https://hoosrooming.herokuapp.com/> | Python, Django, PostgreSQL, Heroku, Travis CI

Jan 2021 – May 2021

- Led team of 5 to build a roommate finder web-application that dynamically matches users to potential roommates
- Devised distance algorithm to produce tailored list of compatible users and assembled user-to-user messaging system
- Incorporated **Cloudinary API** and **Spotify API** to customize user profile with pictures and music preferences
- Communicated with over 10 stakeholders to evaluate user needs and facilitated scrum processes and workflows

Intentions | <https://oit-project.herokuapp.com/> | Python, Django, PostgreSQL, Heroku, Figma

Mar 2021 – May 2021

- Engineered an introspective journal application that enables users to submit daily entries and responses to prompts
- Utilized **Django Authentication** and **SendGrid** server to implement a secure user authentication system
- Spearheaded design of product mainframe using **Figma** and created user interface using **HTML, CSS, and Bootstrap**
- Deployed application into production using **Heroku** and presented prototype for over 60 potential users

TI-Robotics System Project | C, Code Composer

Jan 2020 – Dec 2020

- Assembled a semiautonomous, mobile robot to follow randomized paths labeled by duct tape
- Designed finite state machine and programmed bump and distance sensor interface
- Implemented interrupts to minimize distance from obstacles and respond to collisions

Technical Skills

Languages: Java, Python, C/C++/C#, SQL (Postgres), JavaScript, TypeScript, HTML/CSS, Matlab

Frameworks: Django, React, Node.js, Spring Boot, JUnit, Agile/Scrum Methodology, MVC

Developer Tools: Git, Docker, VS Code, PyCharm, IntelliJ, VirtualBox, Travis CI, Gitlab CI/CD Pipeline

Libraries: Bootstrap, pandas, NumPy, React Redux