Cameron Labbe

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Education

Colorado School of Mines

Golden, CO

B.S. IN COMPUTER SCIENCE

Aug 2019 – May 2022

GPA: 3.9

Work Experience _____

Optical EnginesColorado Springs, CO

SOFTWARE ENGINEER INTERN

• Worked on the Reinventillator project, a RPi IoT based software driven medical ventillator

- I worked mostly with Python using the PySide 2 and QT for Python packages
- I worked full-stack during this internship using Agile development
- As a team we rebuilt the UI and added features such as an alarm system and patient profiles

FrankenchillerNorthglenn, CO

SOFTWARE ENGINEER

Sep 2023 – Sep 2024

May 2021 - July 2021

- · Converted from file based data to MariaDB
- Containerized the app enabling one line installation
- Converted to proper OOP reducing the code base massively
- · Added docstrings where needed and set up auto-documentation
- Implemented unit tests with hooks and actions to ensure pull requests pass
- · Created a web app front end

Skills

Programming Languages: Python, C++, Java, C, JavaScript, OCaml

Database Management: MySQL, MariaDB Front End: HTML, CSS, Streamlit

CI/CD: Git, Git Repos (GitHub, Bitbucket), Workboards (Asana, Jira, YouTrack)

CI/CD: Methodologies (Agile, Kanban), Containerization (Docker), Documentation (Sphinx/Docstrings)

CI/CD: Trunk-based dev, Testing (pytest, JUnit), Git hooks, GitHub actions, Pull requests

Platforms: Linux (Bash/Shell), Windows/WSL, RPi, Arduino, IoT

Projects

Foliage Recognition Python

ANALYSE HIGH DEFINITION IMAGES USING A CONVOLUTIONAL NEURAL NETWORK TO DETERMINE IF FOLIAGE IS PRESENT OR NOT. THE THEORETICAL USE CASE WAS FILTERING WHICH IMAGES THE MARS ROVERS SEND BACK.

Clue Java

RECREATED THE BOARD GAME CLUE IN JAVA WITH A HEAVY FOCUS ON UNIT TESTING THROUGH JUNIT.

Maze Solving Robot C++

A ROBOT WITH 2 DISTANCE SENSORS AND A CUSTOM SHAFT ENCODER. THIS ROBOT WOULD FIRST EXPLORE A MAZE FOLLOWING THE RIGHT WALL. THEN DO A SECOND TRAVERSAL FOLLOWING THE FASTEST PATH.

Home Security System Python

A RPI EQUIPPED WITH WITH SENSORS TO DETECT A KNOCK AT THE DOOR, DOOR OPENING, OR WINDOW BREAK-IN.

Awards

2017

2019-2022 **School of Mines Dean's list**, 3.5 GPA or better across all semesters.

School of Mines

National Merit Scholarship Finalist, Scored in the top 1% of all 2017 PSAT scores.

NMSF