Peri Hassanzadeh

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Computer Engineering major seeking internship/research position for Spring or Summer 2023

EDUCATION

UNIVERSITY OF PITTSBURGH   **Pittsburgh, PA**

Swanson School of Engineering   *December 2022*

Major: Computer Engineering   Minor: Persian / Farsi   *Current GPA: 3.43*

RELEVANT COURSEWORK

- Data Structures and Algorithms
- High Performance Computing
- Embedded Processors and Interfacing
- Computer Organization and Architecure

COMPUTER SKILLS

- C++
- C
- Assembly
- Java
- Python
- Linux
- Microsoft Office
- Git

WORK EXPERIENCE

PRUDENTIAL FINANCIAL   **Newark, NJ**

Software Engineering Intern   *June 2022-August 2022*

- Collaborated with project team responsible for re-platforming a large Investment Data Warehouse by communicating bi-weekly updates and presenting overall project to Prudential Global Technology senior leadership including the firm's CTO
- Contributed to the re-engineer of a metadata-driven **ETL** which generates proprietary asset classifications to all positions in the database by leading design sessions with key stakeholders to understand requirements
- Designed, Developed and Tested a reusable dynamic script in Python to automate the conversion of **SQL** INSERT statements into a table-based structure
- Executed script against **7000+** SQL statements at a time from production and provided results to project team within seconds for later use in strategic testing within the new framework reducing the manual labor by hours

UNIVERSITY OF PITTSBURGH   **Pittsburgh, PA**

Undergraduate Teaching Assistant   *Spring 2022-Present*

- Data Structures and Algorithms, Embedded Processors and Problem Solving with C++
- Utilize leadership and problem-solving skills to facilitate students' understanding of material by holding weekly office hours and attending lecture work sessions
- Assist in development and testing of **Python** auto-grading scripts for evaluation of student assignments

SHREC Undergraduate Student Researcher   *Spring 2022-Present*

- Spring 2022 - Investigated the performance metric improvements of a natural language processing algorithm on various NVIDIA embedded GPUs intended for use in space environments
- Fall 2022 - Utilized **Intel DevCloud** to implement common pattern matching algorithms serially and in parallel using **DPC++** and compared performance using an entire human genome as input to facilitate finding optimal solutions for genomic sequencing

ANSYS INC.   **Canonsburg, PA**

Software Development Intern   *Spring and Fall 2021*

- Developed multiple fullstack internal tools using **Python** to automatically download and install ANSYS products from JFrog Artifactory utilizing various API calls
- Upgraded and implemented additional features to a package reporting tool for the Release Management Unit to provide real time updates
- Developed a big data application used to parse compressed data to find specified strings amongst GB of data which reduced search time from hours to seconds
- Utilized **Selenium** to scrape webpage code to parse important information for testing and analysis
- Cross-platform development (Python, Shell, Batch) using Linux and Windows

PROJECTS

RUBIK'S CUBE SOLVER   Fall 2022 – In Progress

Senior Design
- Work in a team of four engineers to create an autonomous system to solve an Rubik's Cube
- Responsible for aspects of computer vision and solving algorithm implementation using **Python** and **OpenCV** by exploring optimized methods for solving within less than 5 seconds

PERSONAL PORTFOLIO   Summer 2022

- Created a personal webpage using **HTML**, **CSS** and **React.js** for use as online resume

BOP-IT SPIN OFF   Spring 2022

Junior Design
- Designed a **PCB** and 3D printed enclosure to create a functional game similar to Bop-It utilizing **C++** and **Arduino** to customize the various controls while working with a team of engineering students
- Used rapid prototyping techniques through the use of continuous testing via simulation software and breadboarding

TRAIN CONTROL SYSTEM   Fall 2020

Systems and Project Engineering
- Developed a simulation of Pittsburgh's North Shore Extension using **C++** by communicating with a group of students of various technical backgrounds
- Utilized **GitHub** as a project management tool to manage codebase and defects
- Created a user interface module to simulate a train dispatcher's view of the entire system including functionality for tracking train location, dispatching to certain position on track and running a schedule