JACK J. HAEK

jackjhaek@gmail.com | 602-228-2113 | www.linkedin.com/in/jackhaek | jackhaek.github.io

Summary

I'm a software engineer based in Tucson, Arizona, with a passion for building robust full-stack applications. My background blends backend development with problem solving strategies, allowing me to craft innovative solutions. I leveraged these skills during my GEOST internship, where I was constantly learning and contributing to exciting projects.

Education

BS in Computer Science from Milwaukee School of Engineering Class of 2024
Fred Loock Scholarship recipient
University Scholars Honors Program participant

Work History

MSOE/Medical College of Wisconsin – Student Worker (Data Science) Jan 2024 – May 2024
Worked with Dr. Muftuler at the Medical College of Wisconsin and a group of students at MSOE to propose a pipeline to extract pyradiomics features from spinal DCE-MRI scans with the end goal to predict future pain and degradation levels in a given patient's spine. This project included working closely with domain experts to determine the effectiveness of the model, implementing several bootstrapping techniques to aid with model parameter tuning, and developing a method of continuous integration using a super compute cluster.

GEOST – Enterprise Software Engineering Intern Mar 2023 – Sept 2023
Role included the design, implementation, and deployment of control software for a satellite payload. Day to day tasks included programming features in C++ under the NASA cFS framework, unit testing, end to end testing with Jenkins, and manual hardware integration tests.

RTM Engineering Consultants – Software Engineering Intern May 2021 – Sept 2021
Role included working with interdisciplinary engineers to identify, develop and distribute add on modules to Autodesk Revit for internal use at the company. This role provided experience in developing software that was consistent and robust while interacting with multiple different versions of Autodesk Revit.

Direct Supply – Software Engineering Intern Nov 2020 – Apr 2021
Role included developing and testing consumer level software that is utilized around the United States. The internship provided an opportunity to expand my skills in team communication and using git in a collaborative environment. As for end to end testing the team decided to use Jenkins to ensure builds were ready for production.

Skills

- Python
- Numpy, Pandas, matplotlib
- C++
- Unix
- Test Engineering
- C#, Java

Activities and Honors

Extracurricular Research Group: Digital Signal Processing using AI	2020 – 2024
NASA Lunabotics Competition Team	2019 – 2021
Northern Athletic Collegiate Conference Scholar-Athlete Award	2019
MSOE Dean's List	2018 – 2020
Student member of the Computer Engineering Industrial Advisory Committee	2018 – 2020
MSOE Varsity Basketball	2018 – 2021

Projects

- 3D Printer & CNC Machine
  September 2021 – May 2022
- Fast Fourier Transform Exploration
  December 2023
- Neural Audio Decorrelation
  September 2023 – January 2024
- More detail can be found at jackhaek.github.io