JACK J. HAEK

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Summary

I'm a software engineer based in Phoenix, AZ, with a history of application development, machine learning research, and data analysis. I leverage my background with many programming languages as I approach new challenges and craft innovative solutions. I am an ambitious individual, looking to join a new team that puts my skills to the test.

Education

Master's in Software Engineering from Arizona State University Class of 2026
Concentration on Software Processes, Management, and Testing

Bachelor's in Computer Science from Milwaukee School of Engineering Class of 2024
Focus on Artificial Intelligence and Machine Learning
University Scholars Honors Program

Work History

Leading Edge Lighting – Software Contractor Dec 2024 – Current
Based on user feedback, developed and proposed a plan to design and implement new applications for order organization, completion, and price estimates leveraging skills with SQL, React, and Golang.

Medical College of Wisconsin – Data Science Co-Op Jan 2024 – May 2024
Worked collaboratively to develop a python-based data pipeline (Tensorflow, NumPy, and Pandas) to extract radiomic features from spinal MRI scans to predict future pain and spinal degradation levels for a patient. Iterations of the model were evaluated by experts and iterated upon by implementing several bootstrapping techniques and developing a method of continuous integration using a super compute cluster.

GEOST – Enterprise Software Engineering Intern Mar 2023 – Sept 2023
Developed, implemented, and tested camera control software in a Linux (RHEL) environment for a satellite payload. Programmed features in C++ (NASA cFS framework) with regular end to end testing utilizing Jenkins, cumulating in hardware testing, all in support of an accelerated development cycle.

RTM Engineering Consultants – Software Engineering Intern May 2021 – Sept 2021
Worked with interdisciplinary engineers to identify, develop, and distribute add on python modules to Autodesk Revit that were both user-friendly and increased productivity for internal engineering teams.

Direct Supply – Software Engineering Intern Nov 2020 – Apr 2021
Developed consumer level software utilizing C# and SQL Azure databases. Feature branches were managed with Git and production candidates were evaluated using an automated Jenkins pipeline.

Activities and Honors

Artificial Intelligence (A.I.) Club – Founding Member 2020 – 2024
Researched various aspects of digital signal processing including neural audio decorrelation and fast Fourier transformation algorithms with a generative adversarial network (GAN) to filter external noises from hearing aids during conversation. Final model trained over the course of 4 weeks, making use of 2 Nvidia DGX super compute nodes.

Capstone Project 2021 – 2022
Worked with a team of interdisciplinary engineers to research and develop a low-cost combined 3D printer and a CNC machine. Led development on a local web server that controls the machine remotely in addition to contributing to firmware development.

NASA Lunabotics Competition Team 2019 – 2021
Northern Athletic Collegiate Conference Scholar-Athlete Award 2019
Computer Engineering Industrial Advisory Committee 2018 – 2020
MSOE Varsity Basketball 2018 – 2021