JACK J. HAEK

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Summary

I'm a software engineer based in the East Valley, 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