



Nick Hageman

SOFTWARE ENGINEER · TEACHING ASSISTANT · RESEARCH ASSISTANT

✉ nickhageman8@gmail.com | 🌐 www.nickhageman.com | 📷 Nick-Hageman | 🌐 Nick-Hageman

Summary

Languages: : C++, Python, Java, Swift, JavaScript, C#

Tools & Frameworks: Git, React.js, PyTorch, TensorFlow, Unity, CMake, AWS, Node.js

Education

University of Iowa, 3.9/4.0 GPA

Iowa City, IA

BACHELOR OF COMPUTER SCIENCE AND ENGINEERING (B.S.E)

Aug. 2021 - May 2025

- **Coursework:** Algorithms, Data Structures, Software Design, Applied ML, Generative AI Tools, Virtual & Augmented Reality
- **Extracurriculars:** Association for Computing Machinery, Google Developer Student Club, UIowa Hyperloop

Experience

John Deere

Urbandale, IL

PART TIME STUDENT, PRODUCT ENGINEERING

Jan 2025 - May 2025

- Refactored FreeRTOS boot sequence by repositioning watchdog task to detect early-stage hardware initialization failures
- Ported and adapted mono-camera health monitoring tests to support stereo vision systems
- Automated regression tests in Python for camera hardware modules

Apple

San Diego, CA

SOFTWARE ENGINEER INTERN

May 2024 - Aug 2024

- Developed an ensemble model to detect anomalous data for power & performance optimization on Apple's first in-house modem chip
- Integrated the model into Jenkins, reducing CI/CD engineers' workflow and providing continuous monitoring
- Built an interface to provide model insights and enable data updates for continuous training, mitigating data drift

Holo Reality Lab

Iowa City, IA

RESEARCH ASSISTANT

Dec 2023 - May 2024

- Developed visionOS UI for a realistic 3D video communication application on the Apple Vision Pro
- Investigated novel RGB-D encoding strategies using neural networks to enhance data efficiency

John Deere

Moline, IL

SOFTWARE ENGINEER INTERN

May 2023 - Aug 2023

- Wrote production code for an internally used application using React.js and Java impacting **20k+** monthly users
- Implemented API endpoints and managed MongoDB collections to efficiently store and retrieve user preferences
- Developed unit & integration tests using Docker, Jest, and Puppeteer to prevent bugs from entering production

University of Iowa

Iowa City, IA

TEACHING ASSISTANT

Jan 2023 - Dec 2024

- Delivered a range of teaching and assessment activities, including tutorials directed toward learning C++
- Held office hours to assist **300+** students debug code and understand advanced programming concepts
- Coordinated with professors to contribute to the development and enhancement of the curriculum

BioNeos

Coralville, IA

SOFTWARE DEVELOPMENT INTERN

May 2022 - Aug 2022

- Built an IoT dashboard application displaying soil moisture data using embedded C++ and JavaScript
- Designed a relational database using SQLite to efficiently store and manage data acquired from microcontrollers
- Built new routes in an Express RESTful API to handle HTTP requests, allowing for streamlined data transfer

Technical Projects

FarmVision

QUEST 2, PYTHON, C#, UNITY

- Developed a **Virtual Reality** agricultural data visualizer by utilizing John Deere Precision Ag APIs
- Implemented an algorithm to process PNG files, extruding 3D geometry to model various field data measurements
- Awarded **Best Data Collection Hack** by UIOWA Business Analytics at HackUIowa 2023

LeetGPT

REACT, OPENAI GPT, JAVASCRIPT

- Developed a chrome extension tool that provides LeetCode users with real time solutions to coding problems
- Leveraged OpenAI's ChatGPT Language Model API for generative solutions
- Added functionality enabling users to create additional custom prompts for seamless interaction with the API