

# Guan Lin

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## EDUCATION

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### Iowa State University

Bachelor of Engineering | Major in Computer Engineering

Ames, IA

May 2023

## WORK EXPERIENCE

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### BAE Systems

Software Engineer

Cedar Rapids, IA

Jun 2023 – 2025

- Architected and developed Modernized GPS receiver software with an 11 person team using using Agile methodologies and Feature Driven Development
- Implemented automated testing framework and conducted rigorous simulations on test benches, identifying and resolving 50+ critical bugs pre-release
- Led technical design reviews for Modernized GPS capabilities, ensuring scalability for future requirements
- Delivered 100% of software/hardware releases meeting technical requirements within project deadlines
- Collaborate cross-functionally with development, QA, systems, and product teams to quickly address and remediate high priority issues
- Coordinated coding efforts using C/C++, Python, and MATLAB, improving performance metrics by 15%

### BAE Systems

Software Engineering Co-op

Cedar Rapids, IA

Jun 2022 – 2023

- Designed automated test scripts in Python for Modernized GPS receiver software in an Agile team environment
- Developed Modernized GPS receiver source code with a team of eight in an agile environment
- Composed technical documentation for software defects, requirements, features, and automated testing procedures
- Mentored new members of the automated testing team by providing knowledge and advice on design techniques and coding standards

## PROJECTS

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### Interactive Learning Web Application

May 2023

- Developed full stack interactive learning web application for large scale classrooms during lectures and outside of class with the use of React.js on the frontend and Node.js on the backend with a team of 6
- Applied knowledge of backend to develop database schema, and SQL development using VM servers to store data
- Developed Express application to help backend development such as creating API's, server side development, etc.
- Built RESTful APIs and coordinated frontend/backend integration through comprehensive documentation and active planning/communication

### Todo List Application

June 2025

- Developed responsive todo list application using vanilla JavaScript, HTML, and CSS with user authentication, list management, filtering, task capabilities, and mobile responsive design with component architecture
- Designed intuitive UI/UX with light/dark theme toggle and deployed to Netlify with CI/CD pipeline and documentation

### Mars Rover Navigation System

May 2022

- Led 4 person team developing autonomous navigation software for obstacle avoidance using embedded C programming
- Modified ARM microcontroller interface and dual sensors, infrared and ping, to automate Roomba navigation

### Portfolio Website

June 2025

- Built responsive personal portfolio using modern web technologies showcasing technical projects with demos

## Technical Skills

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**Languages:** Python, C/C++, MATLAB, Java, JavaScript, SQL

**Frameworks/Libraries:** React.js, Node.js, Express.js

**Tools & Technologies:** Git, SVN, Jira, Docker, Linux, Embedded Systems, Test Automation, SQL Servers