Nick McCullough

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EDUCATION

Iowa State University   Ames, IA
Bachelor of Science, Software Engineering   *Aug. 2021 – May 2025*

TECHNICAL SKILLS

Relevant Coursework: Data Structures and Algorithms, Object-Oriented Programming, Digital Logic, Linear Algebra
Programming Languages: Java, Python, JavaScript, HTML5, CSS3, C, C++, Swift, Perl, SQL, MATLAB
Frameworks/Libraries: React, React Native, NodeJS, ExpressJS, ThreeJS, Flask, JUnit, Angular, Django, Flutter
Tools: Git, GitHub, Eclipse, Intellij, VS Code, Visual Studio, Docker, Google Cloud Platform, AWS

SOFTWARE ENGINEERING CERTIFICATIONS - VIRTUAL EXPERIENCE PROGRAM ON FORAGE

JPMorgan Chase: Implemented changes to existing system in Java, unit testing, pull request on GitHub - June 2023
Goldman Sachs: Cyber security, password hashing, analyzed leaked database risk, offered improvements - June 2023
Wells Fargo: Designed financial data model (ERD), implemented model in Java, pull request on GitHub - June 2023

PROFESSIONAL EXPERIENCE

John Deere   Ames, IA
Software Engineer Intern   *July 2022 – Apr 2023*
- Collaborated with senior engineers to develop, test, and maintain vehicle software, focusing on GPS guidance.
- Assisted in the development and testing of internal Java software solutions, participated in team code reviews.
- Developed 100+ Python and MATLAB scripts for automated data visualization in weekly team presentations.
- Demonstrated initiative by independently learning the vehicle software UI, C/C++ fundamentals and testing.
- Skills: Java, C/C++, Python, MATLAB, git, GPS vehicle software, automation, embedded systems exposure.

Wells Fargo   West Des Moines, IA
Finance Specialist - Account Resolutions 3   *July 2020 – May 2022*
- Provided customer service and partnered with customers to improve their situation. Offered COVID assistance.
- Negotiated with customers daily for terms on repayment to help them keep their account in good standing.

Toyota Financial Services   Cedar Rapids, IA
Finance Specialist - Specialty Legal   *Feb 2013 - Dec 2019*
- Managed $3 million portfolio of 150+ accounts, ensuring daily operations met strict 3-day compliance regulations.
- Initiated complex repossession processes from tow yards. Negotiated fees and customer payments or collateral.

SOFTWARE ENGINEERING PROJECTS

Ames Classroom Finder App (in progress) | *React Native, JavaScript, Firebase*   Apr 2023 – Present
- Currently developing a mobile application to enhance user navigation across Iowa State University's campus.
- Designed to assist students, athletes, faculty and guests in locating thousands of classrooms in over 180 buildings.
- Structuring the app using React Native and JavaScript, and employing Firebase for user authentication.
- Conducting manual research of all building information and location data via ISU facilities and planning website.
- Integrating Google Maps API to display campus map, location and direction from user's current location.

Aerospace Density Altitude Calculator | *Python, MATLAB*   March 2022
- Developed an interactive application using MATLAB to calculate aircraft weight and balance requirements.
- Integrated local airport API using Python to display live density altitude data for comprehensive flight checks.

TEAM LEADERSHIP AND AEROSPACE ENGINEERING EXPERIENCE

Cyclone Rocketry Student Club | *Avionics Subteam, Spaceshot Committee*   Aug 2021 – May 2023
- Optimize rocket avionics GPS trajectory with C++ and multiple sensors on flight board, analyze data post-flight.
- Supported all sub-teams and leadership. Lay ongoing foundation for future students to reach the Karman line.
- May 2022: Successfully managed team of four students to research and design Lockheed SR-71A Blackbird model.
- Dec 2021: Successfully managed team of seven students to design, build and manufacture an aircraft from scratch.