BENNETT P. JACKSON

SOFTWARE ENGINEER

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EDUCATION

 $\textbf{University of Arizona} \,|\: B.S. \text{ in Software Engineering (May 2025)}$

Aug 2021 - Present

GPA | 3.84

Awards | Dean's List with distinction (x3), Academic year distinction (x2), Engineering Honors Convocation Award (x2) **Extracurricular** | Student advisory board for Software Engineering, Member of Software Engineering Wildcats Club

EXPERIENCE & PROJECTS

Software Engineer Intern | Garmin | *Chandler, AZ (On-site)*

May 2024 - Present

- Developed safety-critical embedded C software for Garmin Integrated Flight Decks, ensuring industry compliance.
- Conducted thorough testing through the development of an automated regression testing suite in Python.
- Identified and resolved bugs found during testing through software and Requirement changes.
- Implemented customer requested airframe features to enhance the functionality of Garmin Integrated Flight Decks.
- Leveraged software architecture to implement runtime-determined features, optimizing system adaptability and flexibility.
- Utilized Git to manage and track changes in the software development process.

Student Software Developer | University of Arizona | *Tucson, AZ (On-site)*

Jan 2024 - May 2024

- Developed a full-stack web application for the Systems and Industrial Engineering Disruption Lab to convert and visualize Bayesian networks from OML, enhancing data accessibility and usability for researchers.
- Designed and implemented a parser to efficiently translate OML into data structures for Bayesian network visualization.
- Conducted thorough testing and debugging, achieving a 95% reduction in reported bugs during the testing phase.
- Utilized Flask for backend development, ensuring secure and efficient data handling through RESTful APIs.
- Created a responsive frontend using HTML, CSS, and JavaScript, enhancing usability and satisfaction by 50%.
- Containerized the application using Docker for seamless deployment.
- Utilized Git to manage and track changes in the software development process.

Software Engineer Intern | NASA Jet Propulsion Laboratory | *Pasadena, CA (Hybrid)*

Jan 2023 - Jan 2024

- Developed and optimized Python scripts with open-source libraries, Jama, and TestRail APIs, improving runtime by 32%.
- Led a small team of interns to develop an open source software solution for an internal application migration.
- Implemented CI/CD pipelines with Jenkins for automated testing and deployment of pip packages.
- Employed Agile and Scrum Methodologies to manage workload, and adhere to the Software Development Life Cycle.
- Effectively managed tickets and metrics across multiple sprints using Jira, successfully completing over 100 tickets.
- Conducted internal customer-facing interactions to communicate project updates and resolve concerns.
- Utilized Git and GitHub for version control and team collaboration.

Project | Saving weekly playlist with Spotify API

• This project was written in Python and used the Spotify API to pull a user's Spotify account and then make API calls to get their playlists and add songs to a user's saved playlist. This project also used GitHub Actions to run this script weekly.

SKILLS AND RELEVANT COURSEWORK

Coding Languages | C, C++, Python, Java, HTML, CSS, JavaScript, Verilog, Bash

Technical Skills | Linux, Git, GitHub, Jenkins, TestRail, Jama, CI/CD, UML, SQL, Docker, JUnit

Maven, Software security, Data engineering, Anaconda, Scrum and Agile methodologies

Additional Skills | SDLC, object-oriented programming, REST APIs, unit testing, command-line interface, code optimization, Open-source practices, MS Office, critical thinking, problem solving, teamwork, communication

Coursework | Computer Programming for Engineering Applications 1 & 2, Digital Logic, Software Requirements Analysis, Discrete Math, Discrete Structures and Basic Algorithms, Fundamentals of Computer Organization, Engineering Ethics, Software architecture & Design, Software Assurance & Security, Introduction to Cybersecurity Operations