Anisha Hossain Megha

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EDUCATION

UNIVERSITY OF SOUTH FLORIDA   Tampa, FL
Bachelor of Science in Computer Science | GPA: 4.0   Expected May 2026
Awards: USF Green and Gold Presidential Waiver Award, Dean's List Award (Fall 2023, Spring 2024, Fall 2024, Spring 2025)
Relevant Coursework: Analysis of Algorithms, Software System Development, Data Structures and Algorithms, Computer Architecture, Software Engineering, Operating Systems, Cryptography, Secure Coding

WORK EXPERIENCE

Systems Software Research Assistant | *USF Interface Research Lab (IRL)*   Aug 2025 – Present
- Built performance-critical arithmetic modules in RISC-V assembly and Python for AI inference on resource-constrained devices, improving simulated throughput by 57%
- Developed automated benchmarking, testing, and validation pipelines to evaluate experimental numeric systems, reducing manual testing time by 40%
- Partnered with researchers to translate low-level architecture requirements into reusable software, accelerating iteration on energy-efficient edge AI systems

Research Assistant – Software Engineering | *USF Computational Social Science and AI Lab*   Jan 2025 – Aug 2025
- Implemented interactive experiment interfaces in React using TypeScript, including forms, buttons, real-time interaction flows, and a chatbox, improving participant data-capture reliability by 25%
- Configured frontend logic to accurately collect and transmit user inputs, reducing data-collection errors by 32%
- Integrated AI-generated responses into the chatbox UI by connecting frontend components to backend model endpoints, enabling responsive experiment-dependent conversations

Technical Research Intern | *NASA L'SPACE NPWEE Academy*   June 2024 – Sep 2024
- Automated portions of the team's analysis workflow using Python scripts, reducing manual data-processing time by 15% and standardizing output formats for design evaluations
- Collaborated with an 11-member team to organize design data, support simulation planning, and coordinate iterative testing cycles for a habitat research prototype
- Assessed preliminary project proposals for feasibility and documentation quality as part of the program's review panel

PROJECTS

InCollege | **FullStack Developer** | *React, Node.js, COBOL, Docker, Git, Agile, Jira* | InCollege.com
- Led end-to-end development of a production full-stack platform used by 100+ users, delivering authentication, job search, networking, and messaging features
- Designed a Node.js API layer bridging a React frontend with a legacy COBOL backend, enabling secure, real-time data exchange
- Containerized the COBOL runtime and application stack using Docker to establish reproducible cloud environments
- Delivered 25+ features across 10 Agile sprints, owning feature design, implementation and testing within a 4-person team
- Acted as rotating Product Owner, translating user feedback into Jira tickets, prioritizing the backlog, and coordinating sprint planning and retrospectives, which improved backlog clarity and sprint flow

Advent Calendar Builder | **FullStack Developer** | *React, Vite, Node.js, Express, PostgreSQL* | AdventCalendar.com
- Architected and shipped a production-ready full-stack application enabling authenticated creation, editing, publishing, and public viewing of digital advent calendars
- Built a component-driven React frontend with reusable editors, dynamic routing, and centralized API handling
- Designed a PostgreSQL data model using JSONB to support flexible per-day content with relational integrity
- Implemented secure session-based authentication and authorization, including share tokens with strict read-only public access
- Deployed and configured the application, resolving CORS, secure cookie handling, and SPA deep-link routing

TECHNICAL SKILLS

Languages: Python, C#, C, C++, JavaScript, SQL, COBOL
Web & Frameworks: React.js, Node.js, Express.js, Typescript
Databases: MySQL, PostgreSQL
Tools & Systems: Docker, Git, GitHub, Slack, VSCode, Jira, Postman, Vercel, Render, Linux/Unix
Methodologies: Agile/Scrum, SAFe 6.0, Test-Driven Development
Core Competencies: Frontend & Full-stack development, REST API design, Object-Oriented Programming, Containerization, Debugging & Testing, Data Structures & Algorithms, CI/CD collaboration

LEADERSHIP

Residential Education at USF | **Residential Assistant**   Aug 2025 – Present
- Mentor and support a community of 30+ residents through conflict resolution and campus engagement initiatives