DILLON ARCHER, M.S.

Miami, FL | dillonarcher@hotmail.com | (786) 771-1374 | [LinkedIn](#) | [Github](#) | [Website](#)

SKILLS

- **Programming Knowledge:** Java, Python, C/C++, HTML5, CSS3, JavaScript, TypeScript, SQL, PHP, C#
- **Tools/Technologies:** SQL Server, Webpack, Babel, Git, Docker, Postman, MySQL, Swagger (OpenAPI)
- **Library/Framework Knowledge**: NodeJS, React.js, Laravel, Lighthouse (GraphQL), Tailwind CSS, Vue.js
- **Concepts:** REST APIs, OAuth, Unit Testing, Software Design, Web Development, Accessibility

PROFESSIONAL EXPERIENCE

Florida International University - College of Business | Miami, Florida   *March 2024 – April 2025*
Developer Assistant
- Partnered with a team of engineers to design, develop, and maintain an internal tool that handles employee data contracts, classes and course accreditations, etc., replacing the legacy system.
- Utilized **Microsoft SQL Server** in conjunction with **Laravel** for database hosting and management.
- Designed a backend component for contract management, creating database schemas and relationships, and validated designs with a senior software engineer.
- Added **unit testing** for 50+ backend classes, writing over 200 testing functions to ensure system reliability.
- Collaborated with the Assistant Dean of the College of Business to gather requirements and estimate project timeline.
- Implemented **email automation** and real-time **WebSocket** communication.
- Produced detailed **Swagger (OpenAPI)** documentation to enhance testing protocols.

Florida International University | Miami, Florida   *January 2023 - March 2024*
Student Peer Tutor - Math and Programming
- Completed professional tutor training program from the Center for Academic Success.
- Mentored undergraduate students in math and programming courses, including Algebra 1, Pre-Calculus, Calculus 1, Programming 1 & 2, and more. Helped students raise their grades by an average of two letter grades.
- Collaborated with tutors to enhance methods for fulfilling student requests, boosting department success rates.
- Provided individualized tutoring for each student, catering to their learning styles and academic needs.

EDUCATION

M.S. in Computer Science   *Graduation Date: April 2025*
- Florida International University; Miami, Florida
- **GPA: 3.47**
- Relevant Coursework: Operating Systems, Applied Parallel Computing, Software Development for Telecommunications, Advanced Database Systems, Security and Privacy: Attacks and Defenses, Software Design

B.S. in Computer Engineering   *Graduation Date: July 2023*
- Florida International University; Miami, Florida
- **GPA: 3.57**
- Relevant Coursework: Embedded Computing Systems, Microcomputers, Reduced Instruction Set Computers (RISC) and Lab, Signals and Systems, Electronics I, Electronics II and Lab, Intro to Solid State Devices

PROJECTS

LLM-based Cross-site Scripting Detection | Miami, FL   *January 2024 – Present*
- Collaborated in a team of 3 to build an LLM-based XSS scanner that blocked attack payloads and stored attack information for further analysis.
- Simulated XSS attacks via the comment section on a simple social media webpage to test vulnerabilities.
- Improved detection accuracy by fine-tuning prompts and applying context-aware payload filtering.

Waste Recognition System - Senior Design Project | Python, Embedded | Miami, FL   *January 2023 - July 2023*
- Collaborated in a team of three to design image recognition by using a *Raspberry Pi* with a success rate of 92%.
- Utilized knowledge of **Python** to integrate motor control with image recognition to separate waste placed in bin.
- Refactored code to reduce system response time by about 47.5%