

PAVAN POLAGANI

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SUMMARY

Software Engineering Intern with strong foundation in Java-based system development, database design, and full-stack web applications. Hands-on experience developing and validating backend APIs, integrating GUI components using React, and working with relational databases using SQL in Linux and Agile environments. Proven problem-solving, documentation, and collaboration skills, with enthusiasm to learn optical network management systems and contribute to subsystem and component development.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, SQL, JavaScript (ES6+), PHP, TypeScript
- **Frameworks & Architecture:** MVC Architecture, REST APIs, Python API Architecture, Client–Server Architecture-, Frontend Component-Based Architecture, Spring Framework, Hibernate, JDBC
- **Web & UI Technologies:** HTML5, CSS3, jQuery, Bootstrap, Responsive Web Design, Media Queries, Cross-Browser Compatibility, React
- **Databases:** MySQL, Relational Database Design, CRUD Operations, SQL, Query Optimization
- **Tools:** Git, GitHub, Chrome DevTools, CI/CD Concepts, Agile, AI Tools, Unix/Linux, JUnit (foundational), PyTest (foundational)

EXPERIENCE

Softech Technology Group, Inc. | *Software Developer (Full-Stack)*

Aug 2025 - Present

- Improved application reliability by developing, validating, and troubleshooting backend API features using Python and SQL, resulting in the resolution of 10+ production defects across releases
- Strengthened system stability by reviewing and improving existing codebases, validating API responses and relational database behavior in Linux environments, leading to reduced post-deployment issues
- Enhanced development workflows by collaborating in Agile teams using React and Git, documenting changes, and communicating technical updates clearly, enabling smoother feature delivery and maintenance
- Developed and validated Java-based components and wrote unit test cases to support subsystem integration and ensure reliable application behavior.

Axitem Software Solution Inc. | *Software Developer Intern*

Jan 2025 - Jul 2025

- Improved backend integration quality by supporting Python REST API enhancements and validating data handling logic, resulting in stable and accurate integration workflows
- Reduced manual testing effort by assisting with reusable Python-based validation and testing scripts aligned with Pytest concepts and leveraging AI tools to generate test data, leading to faster and more consistent test cycles
- Improved release readiness by collaborating with developers during Agile sprints and preparing clear technical and test documentation, ensuring smooth deployments and backward compatibility
- Assisted with database schema validation and used AI tools to support development and testing activities during Agile sprints.

PROJECTS

Internal Operations Management System | *New England College*

Henniker, NH

- Improved backend reliability by developing and validating RESTful APIs using Java, Python concepts, and SQL, resulting in consistent data processing and predictable system behavior
- Enhanced data accuracy by designing and validating relational database workflows and executing structured test scenarios, leading to reliable operational outputs
- Developed backend components using Java with Spring, Hibernate, and JDBC, and prepared design documentation to support system understanding and demos.

Customer-Facing Web Application Platform | *New England College*

Henniker, NH

- Delivered stable user workflows by building and validating frontend-to-backend integrations using JavaScript, REST APIs, and SQL, resulting in reliable data exchange and application behavior
- Improved application quality by testing user interactions, API responses, and database integrity, reducing edge-case failures in customer-facing features
- Built GUI and frontend components using React and integrated them with backend services through REST APIs.

EDUCATION

New England College

Master of Science, Computer Information Systems (GPA: 3.92)

Henniker, NH

- **Coursework:** Relevant Coursework: Software Engineering, Object-Oriented Programming, Database Systems