

# Gaurav Gajavelli

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## Education and Certifications

**Rose-Hulman Institute of Technology**, Terre Haute, Indiana

**May 2026**

*Bachelor of Science, Computer Science | Minor in Artificial Intelligence*

**GPA: 3.98/4.0**

**AWS Certified Solutions Architect – Associate (SAA)**, Amazon Web Services – September 2024

## Technical Skills

**Languages:** Java, C#, JavaScript, Python, SQL, Ruby, C++, HTML, CSS

**Frameworks/Tools:** Spring Boot, Node.js, .NET, React, Vue, Ruby on Rails, AWS, Docker, Kubernetes, PostgreSQL

## Experience

**Caterpillar Inc.**

**June - September 2025**

*Backend Development Intern*

*Peoria, Illinois*

- Maintained **HCL Commerce (Java)** catalog services for 20K+ daily visitors on parts.cat.com, coordinating with administrators to stage content through QA environments for safer, reversible releases
- Extended **Spring Boot/Apigee** API, gated by feature flags, to deliver regionalized visibility across ~1.4M parts
- Developed shell scripts to enable custom parts loads across 100+ dealerships and cut storage costs ~\$2K/month by preventing daily indexing of temporary data in **Apache Solr**
- Authored monthly root cause analyses across product pages, promotions, and feature-flag governance, documenting preventive actions to reduce recurring defects

**SAP America**

**June - August 2024**

*Software Engineering Intern*

*Indianapolis, Indiana*

- Revamped **Vue** frontend and **Node.js** microservices, simplifying setup for 1B+ messages sent by brands including Disney and Nike
- Designed test automation for partner APIs using **GitHub Actions** to minimize overhead, saving 20+ hours/quarter
- Expanded unit/regression test coverage using **Mocha**, **Jest** mocks, and **Cypress** E2E in full-stack refactor

**London Computer Systems**

**February - May 2024**

*Software Development Intern*

*Cincinnati, Ohio*

- Developed **C#/.NET** Rent Manager Web API, resolving feature requests and performing same-day hotfixes for customers and third-party developers
- Optimized **MySQL** queries for SMS messaging and electronic payment, resulting in 20% faster response times across 100,000+ API requests yearly
- Researched regulatory requirements and updated NACHA file storage, securing customer financial data

**Indigo BioAutomation**

**May - August 2023**

*Software Engineering Intern*

*Carmel, Indiana*

- Implemented **Ruby on Rails** and **C++** data calibration algorithm for Ascent flagship web app/medical device
- Analyzed 2M+ calibration curves using **MySQL**, **R**, and **Python**, verifying 20% failure reduction
- Utilized **Git** and **Jenkins** CI/CD for collaboration and quality control in test-driven development

## Projects and Research

**Artificial Intelligence Research Project** | *Python, Pandas, MATLAB* | [GitHub Link](#)

*Research mentored by Dr. Julian Shun @ MIT CSAIL Lab*

- Created a neural network classifier for MRI scans, matching key disease markers and identifying Parkinson's cases with 91.57% accuracy
- 1st Place National Science Teaching Association Momentum Research Grant (\$2,000)

**Personalized Nutrition Planner** | *TypeScript, Node.js, React, AWS* | [GitHub Link](#)

- Built a meal-tracking web scraping app to assist students with dietary preferences
- Leveraged combinatorial algorithm to generate millions of potential meals meeting USDA health standards