Shrey Patel

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Education

Bachelor of Science, Computer Science — **May 2025**
Virginia Tech — *GPA: 3.86*

Experience

Full-Stack Software Engineer Intern — **Aug 2024 – Dec 2024**
Peraton — *Blacksburg, VA*

- Developed Java-based microservices and REST APIs to enable real-time satellite telemetry services across 3+ ground stations.
- Transformed 20+ React components into reusable styled components, reducing future UI development time.
- Refactored existing API structure for modem and switch telemetry endpoints, achieving 17% lower network overhead.
- Implemented subsystem-specific RabbitMQ channels as part of a broader system re-architecture to reduce message queuing latency by 23%.
- Built and maintained unit and integration test suites with Jest and Mockito automating regression testing and integrating into CI/CD pipelines.

Software Engineer Intern — **May 2024 – Aug 2024**
CACI — *Reston, VA*

- Partnered with database architects to expand ERP capabilities across 35+ federal agencies by designing multi-agency schemas
- Accelerated reporting turnaround from days to minutes by developing dynamic UI dashboards which enabled self-service access to financial and user activity data.
- Automated compliance checks across 5 environments with PL/SQL procedures for policy validation.
- Designed Python pipelines to process 133K+ Active Directory records weekly, replacing PowerShell scripts and improving runtime by 88%.

Full-Stack Software Engineer Intern — **May 2023 – Aug 2023**
Ventera — *Reston, VA*

- Tackled API latency issues by redesigning data access patterns and introducing strategic caching, meeting a critical performance goal of sub-250ms response times.
- Authored 30+ tests mocking API calls and components, raising code coverage from 67% to 97% post-rewrite.
- Integrated OAuth 2.0 and multi-factor authentication using Azure AD B2C to secure enterprise login for 500+ employees.
- Developed a scalable middleware service to seamlessly connect Azure AI Foundry and process 250+ documents weekly.

Projects

Jobhub.vt.edu 🔗 | *React, Flask, PostgreSQL, Docker, Kubernetes* — **Jan 2025 – May 2025**

- Worked in a 5-person team to develop a web portal for Virginia Tech to manage its industry partnership programs.
- Designed backend services in Flask to handle department-level operations and user permissions across the platform.
- Deployed workloads on Virginia Tech's Kubernetes platform via GitLab CI/CD and Docker, ensuring reliable scaling.

House.inc 🔗 | *React, Spring Boot, PostgreSQL, Azure AI* — **VTHacks 12**

- Took ownership of backend development in a team of 4, designing service layer components within a client-server architecture for housing recommendations.
- Integrated Azure AI for natural language query parsing, enabling contextual housing search via a conversational assistant.

Blu-pay | *Kotlin* — **VTHacks 11**

- Developed an app to simplify real-time expense splitting among friends, leveraging Bluetooth to detect nearby devices.
- Engineered an instant transaction solution using Google's Nearby Connections API to log and manage shared expenses.

Leadership/Extracurricular

FIRST Robotics Mentor — **Aug 2022 – Present**
Undergraduate Teaching Assistant | *CS4604 Database Management Systems* — **Jan 2024 – May 2024**
Resident Advisor — **Jan 2022 – May 2023**

Technical Skills

Languages: Java, Python, TypeScript/JavaScript, C/C++, SQL
Frontend/Backend: Spring, NodeJS, Flask, React, Angular, JUnit, Mockito, Jest, Mocha, Jasmine