Shrey Patel

US Citizen | 414-539-9402 | shreyp2305@gmail.com | linkedin.com/in/shreyp2305 | my-portfolio

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+ Typescript and React components into reusable styled components using HTML and CSS, reducing future UI development time.
- Integrated automated integration tests into Jenkins CI/CD pipelines on AWS infrastructure provisioned with Terraform.
- Implemented subsystem-specific RabbitMQ channels as part of a broader system re-architecture to reduce message queuing latency by 23%.

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

- Revamped a data validation service by optimizing PL/SQL procedures and adding composite indexes, cutting average query latency from 2 seconds to under 200ms.
- Accelerated reporting turnaround from days to minutes by developing dynamic UI dashboards which enabled self-service access to financial and user activity data.

Software Engineer Intern   **May 2023 – Aug 2023**
Ventera   *Reston, VA*

- Deployed scalable RESTful APIs using NodeJS to handle user interaction and content delivery for 1,000+ daily users, incorporating optimized query handling and caching techniques.
- Raised code coverage from 67% to 97% by authoring 30+ tests mocking API calls and Javascript components.
- Uncovered excess Kubernetes resource allocations and cut CPU by 25% alongside memory and pods by 15% by establishing performance testing suit integrated with Jenkins.

Projects

Personal Portfolio Website ⧉ | *NextJS, OpenAI, LangChain, Astra DB, Vercel AI SDK, Upstash Redis*   **Aug 2025 – Present**

- Built an AI-powered chatbot to answer natural language questions about my portfolio content.
- Orchestrated retrieval-augmented generation (RAG) through LangChain and Vercel's AI SDK with GPT-5 LLM.
- Implemented cache-aware querying with a serverless Redis instance to reduce latency and operational costs.

Jobhub.cs.vt.edu ⧉ | *React, Flask, PostgreSQL, Docker, Kubernetes*   **Capstone Project**

- Architected a modular Python-based backend with optimized SQL database schemas; building and testing RESTful APIs, managing Gitlab workflows, and validating endpoints using Postman.
- Deployed workloads on Virginia Tech's Kubernetes cluster via GitLab CI/CD and Docker, ensuring reliable scaling.

House.inc ⧉ | *React, Spring Boot, MySQL, Azure AI*   **VTHacks 12**

- Collaborated in a team of 4 to design service layer components in a client-server architecture for housing recommendations.
- Integrated Azure AI for natural language query parsing, enabling contextual housing search via a conversational assistant.

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, NoSQL
Frontend/Backend: Spring, NodeJS, Flask, React, Angular, Redis, LangChain, RabbitMQ, PostgreSQL, MySQL, MongoDB, Tailwind, Mockito, Pytest, Mocha, Chai
Cloud/DevOps: AWS, Azure, Git, Docker, Kubernetes, Jenkins, Terraform