

Vidyut Venkatesan

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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

SUMMARY

Software Engineering graduate with hands-on experience building data-intensive backend systems, including real-time event pipelines processing 1000+ events per second through Apache Kafka into PostgreSQL, and full-stack applications backed by relational databases on AWS. Comfortable writing and optimising SQL against production schemas, working with REST APIs and data source endpoints in Python, and deploying via Docker, Kubernetes, and CI/CD. Strong analytical problem-solving background with experience translating stakeholder requirements into technical solutions in Agile delivery teams.

EDUCATION

Bachelor of Software Engineering

RMIT University, Melbourne

Dec 2025

TECHNICAL SKILLS

Languages: Java, Python, JavaScript (TypeScript), C/C++, C#

Backend & APIs: Spring Boot, FastAPI, Node.js, REST APIs, .NET

Frontend: React, Next.js, Astro, Vite, HTML, CSS

Cloud & DevOps: AWS, Docker, Kubernetes, GitHub Actions, CI/CD

Databases: PostgreSQL, MySQL, DynamoDB, SQLite

Tools & Practices: Git, Linux, Bash, Jira, Confluence

PROFESSIONAL EXPERIENCE

Software Engineering Intern

IITM Pravartak Technologies Foundation, Chennai, India

Jul 2024 - Jul 2025

- Delivered the authentication module for a custom PostgreSQL extension in C on Linux, implementing OAuth 2.0 and JWT-based credential handling to enable secure service-to-service integration in production.
- Designed a **scalable, production-hardened authentication architecture**, improving login performance by **30%** through caching and request optimisation.
- Diagnosed and resolved authentication bugs in production using `gdb` and structured logging, supporting incident triage and reducing time to root cause across the development team.
- Collaborated with an **Agile** development team using **Jira** and **Confluence**, to deliver secure database extensions, ensuring **high-quality, well-documented code** aligned with strict security and performance standards.

Key Technologies: C, PostgreSQL, Linux, OAuth 2, REST APIs, Jira, Confluence, Docker, JWT, gdb, Bash Scripting

Web Developer

RMIT Information Security Collective, Melbourne

Dec 2023 - Jul 2024

- Led the migration of the RISC public facing website to **Next.js**, leveraging **Server-Side Rendering (SSR)** to boost SEO and reduce average page load time by 35%.
- Built responsive, accessible UI components using semantic **HTML** and **CSS**, ensuring cross-browser compatibility and adherence to modern web standards

Key Technologies: Next.js, React, JavaScript, HTML, CSS

PROJECTS

Telstra SIM-Swap Detection API (Industry Capstone Project)

- Delivered a production-grade FastAPI microservice end-to-end, from requirements gathering with the client through to deployment, integration testing, and handover documentation.
- Led weekly client stakeholder meetings, translating technical progress into business outcomes and gathering integration requirements to align delivery with project objectives.
- Designed and implemented a real-time event-driven integration using Apache Kafka, processing 1000+ events/second with sub-100ms latency, with Prometheus monitoring for production observability.
- Containerised the service with Docker and deployed on Kubernetes, with CI/CD via GitHub Actions and pytest-driven regression coverage on every change.

Key Technologies: FastAPI, Python, Docker, Kubernetes, Prometheus, REST APIs, Apache Kafka, PostgreSQL, Pytest, Jira, GitHub Actions

Markdown Terminal Viewer | .NET CLI Tool - [GitHub Repository](#)

- Built a cross-platform terminal-based Markdown viewer in C# (.NET) that parses Markdown via the Markdig library and renders styled output directly to the terminal using ANSI escape sequences, with a pager-style scrolling interface.
- Designed an interactive terminal UI for navigation and scrolling, with keyboard input handling and screen redraw logic tested across Linux and Windows terminals.

Key Technologies: C#, .NET, Markdig, ANSI escape codes, Terminal UI, Cross-platform CLI

SuperPrice | Full-Stack Grocery Shopping App - [GitHub Repository](#)

- Built a responsive React (TypeScript) frontend for a grocery price comparison platform, featuring real-time price visualisation, role-based UI flows, and a user notification system, backed by a Spring Boot REST API.
- Designed and developed 10+ REST endpoints with role-based access control, deploying the application using Docker and AWS Elastic Beanstalk via ECR.
- Implemented comprehensive unit and integration testing (JUnit, 95%+ coverage) and established CI/CD pipelines via GitHub Actions to catch regressions on every PR and merge, ensuring reliable deployments.
- Collaborated in a team of 5 across three sprints, participating in code reviews via GitHub pull requests and managing tasks via Jira.

Key Technologies: Spring Boot, React, Java, Maven, TypeScript, AWS (Elastic Beanstalk, ECR, EC2), REST APIs, JWTs, MySQL, JUnit 5, GitHub Actions

ACHIEVEMENTS

2nd Place CodeQuest 23 Hackathon - [GitHub Repository](#)

- Placed **2nd** of 120+ teams by building an autonomous bot in Python and Docker for a real-time strategy simulation.

Key Technologies: Python, Docker

VOLUNTEERING EXPERIENCES

Student Developer Member

Google Developer Student Club (GDSC), RMIT

- Organised and facilitated technical workshops for students, breaking down complex development concepts for non-technical audiences and collaborating with cross-disciplinary teams.