Vatsal Unadkat

Phone: +91 9726581591 | Email: vatsalunadkat07@gmail.com | LinkedIn | GitHub | Residence: Rajkot, Gujarat, India

Education

VIT Bhopal University
BTech in Computer Science and Engineering (CGPA: 8.25)

G.T Sheth School
12th State board (77%)
Saint Paul's School
10th ICSE (89%)

Bhopal, Madhya Pradesh
2022-2026
Rajkot, Gujarat
2021-2022
Rajkot, Gujarat
2020 - 2021

Projects

Voyage Vista – A Tour Website (GitHub)

Feb 2024 - May 2024

- Designed and deployed *Voyage Vista*, a full-stack travel website, leveraging **React**, **Node.js**, and **RESTful APIs** to handle over **1,000** potential user interactions daily, streamlining travel planning for users across 3+ key features: **destination exploration**, **accommodation booking**, **and itinerary planning**.
- Processed a robust backend with modular Node.js architecture, integrating **3 third-party APIs** (e.g., payment systems, diagnostic tools) to ensure **seamless transactions** and accurate data exchange, while delivering the project within a **6-month Agile sprint timeline**.
- Developed a system to serve as gateways to adventure, offering a glimpse into the vast array of experiences awaiting travellers. Provided detailed information on over **100 destinations**, **200+ accommodations**, **and 50+ itineraries**.

AWS Billing Machine (GitHub)

Nov 2024 – Dec 2024

- Proposed a scalable billing engine for an **IaaS platform** in C++, processing resource usage data from multiple regions to **generate monthly customer bills** efficiently.
- Implemented support for **free-tier eligible EC2 instances** and reserved instances, optimizing cost calculations and ensuring accurate billing.
- Enhanced the application to handle reserved instance billing, **achieving 20% cost reduction** by implementing a module to calculate discounts for long-term EC2 usage and integrating **elastic IP usage tracking**.

Experience

Tark Technologies | Software Development Intern (Certificate)

Oct 2024 - Dec 2024

- Developed an **AWS Billing Engine** in C++, leveraging AWS resource, usage, and pricing APIs to generate detailed monthly itemized bills for clients across multiple global regions, processing over **750 usage hours** and ensuring accuracy in **cloud cost tracking**.
- Designed and implemented a Train **Ticket Reservation System** in C++, utilizing object-oriented programming principles to handle **seat allocation**, ticket booking, **waitlist management**, and real-time availability updates, **improving system efficiency by 20%.**
- Applied advanced C++ programming techniques to design robust and **scalable software solutions**, contributing to system architecture and implementation for **enterprise-grade applications**, delivering two projects within a **three-month timeline**.

Technical Skills

- Languages: C++, Python, SQL (MySQL), JavaScript, HTML/CSS.
- Technologies: React, Node.js, Express.js, Mongoose, MongoDb.
- Concepts: Analytical thinking, Object-oriented programming (OOPS), Data Structures and Algorithms (DSA), Functional Programming, REST API, AWS Cloud, Kali Linux.
- **Developer Tools:** Git, GitHub, VS Code, Visual Studio, PyCharm.
- Profiles: LeetCode, Code360, GitHub.

Achievements | Certifications

- Secured a <u>3rd position</u> in the "Mission Impossible Code protocol" Hackathon Conducted by the AI club of VIT Bhopal, <u>Contributed</u> in the Girl Script Summer of code 2024(GSSoc'24).
- Event management lead of the Open-Source Club and core team member of the Ramanujan math's Club at VIT Bhopal University.
- Participated in the Flipkart Grid Hackathon 6.0, Adobe Hackathon, Walmart Sparkathon, and HackOn with Amazon.
- Certifications: Forage | AWS APAC Solutions Architecture Job Simulation, Forage | Accenture UK Developer and Technology Job Simulation, Vityarthi | Python essentials, NPTEL | Cloud Computing