

# VRAJKUMAR PATEL

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## Education

### Dhirubhai Ambani University

Master Of Technology in ICT (CPI: 8.39 / 10)

2024 - 2026

Gandhinagar, Gujarat

### Government Engineering College, Gandhinagar

Bachelor Of Engineering in Computer Engineering (CGPA: 8.00 / 10)

2020 - 2024

Gandhinagar, Gujarat

### New Era High School

12th PCM (Percentage: 83.23)

2019 - 2020

Vadodara, Gujarat

## Experience

### Slash Mark IT Startup

Jan 2024 – April 2024


Software Engineering Intern

Remote

- Completed 4 months of internship focused on the MERN stack, building full-stack projects and gaining hands-on development experience.
- Learned and applied version control practices (Git/GitHub) for collaborative development and project management.


## Projects

### Serverless Projects API | AWS Lambda, API Gateway, Caching, REST API

Demo 

- Built a serverless API with AWS Lambda + API Gateway to serve portfolio data, replacing a slower Render backend.
- Implemented caching with **Cache-Control/Last-Modified** headers, achieving near-instant responses, zero cold starts, and no idle costs.

### Food-Delivery Website | React, Node, Express, MongoDB, Postman

Demo 

- Designed and implemented a mobile-responsive food-delivery platform featuring user authentication, menu browsing and shopping cart
- Built RESTful APIs with Express.js and integrated MongoDB for scalable and efficient backend data management.

### Task Manager App | Node, Express, MongoDB, AWS



- Developed a task management system enabling users to add, update, and delete tasks.
- Implemented RESTful APIs in Express.js and used MongoDB Atlas for secure cloud-based data storage.
- Deployed the application on AWS Elastic Beanstalk for reliable and scalable hosting at zero cost.

### Access Pattern-Aware Join Reordering Algorithm | Python, PostgreSQL, Perf

Guide: Prof. Minal Bhise



- Designed a lightweight framework to study how join order affects cache performance by evaluating memory access patterns using perf counters.
- Generated and executed all 8 join permutations of TPC-H Query 5, logging runtime and cache misses to identify pattern-performance correlations.

## Technical Skills

**Languages:** C++, Java, HTML, CSS, JavaScript, Python

**Developer Tools:** Git, GitHub, Postman, Docker, AWS

**Frameworks & Libraries:** React.js, Node.js, Express.js, Tailwind CSS, NumPy, Pandas

**Databases:** PostgreSQL, MySQL, MongoDB

**Soft Skills:** Problem-Solving, Team Collaboration, Leadership, Communication

**Coursework:** Data Structures And Algorithms , Operating Systems, DBMS, CN, OOPS

**Areas of Interest:** Backend, Cloud, System Design, Competitive Programming

## Achievements

- Secured AIR 6409 in Computer Science GATE 2024 among 1,23,967 candidates.
- Achieved Global rank of 31 in Codechef's START197 contest.
- LeetCode: 450+ problems solved — 1432 rating