# Akshat Yadav

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# TECHNICAL SKILLS

JavaScript (ES6+), TypeScript, React.js, Node.js, Express.js, MongoDB, PostgreSQL, RESTful APIs, Redux, HTML5, CSS3, Tailwind CSS, Bootstrap, C++, Python, Flask, Fast API, JWT Authentication, CI/CD

## Projects

#### PACER Quest | MERN Stack, JWT Auth, Performance Optimization

Mar 2025

- Engineered full-stack flashcard and topic based quiz generation application serving students and educators based on React frontend and Node.js/Express REST API
- Architected MongoDB schemas with indexing, reducing query times by 40% for user progress tracking
- Secured application with JWT authentication implementing refresh tokens and protected routes
- Boosted rendering performance by 60% through React virtualization techniques for large datasets

## One Editor | Next.js 15, TypeScript, Node.js, MongoDB, Tailwind CSS

Nov 2024

- Spearheaded development of full-stack web application with online editor supporting 10,000+ monthly users
  accessing simultaneously
- Streamlined form handling by implementing React Hook Form with Zod validation, reducing errors by 35%
- Designed scalable backend APIs processing 100+ requests/minute with Node.js and MongoDB
- Pioneered reusable component library using Shaden UI and Tailwind CSS, accelerating development by 25%

## PocketFlow Tutorial Framework | Python, Flask, LLM APIs

Aug 2023

- Established open-source framework converting LLM codebases into tutorials, adopted by developers
- Innovated modular architecture supporting 5+ LLM frameworks, increasing compatibility by 70%
- Automated tutorial generation system producing 50+ learning resources monthly
- Cultivated GitHub community with 15+ contributors through effective workflows and documentation

#### Extracurricular Activities

## Research Publications | Quantum Computing, Black Hole Physics

- Published novel paper on "Information Paradox Resolution Through Quantum Geometry" with 200+ reads
- Researched and authored comprehensive guide on "Quantum Computing: Foundations, Technologies, and Applications"

#### Open Source Contributions | GirlScript Summer of Code

- Championed contributions to 10+ projects, delivering 1,000+ lines of optimized code
- Resolved 15+ critical issues through strategic pull requests and code reviews

## Technical Leadership | PI Mathematics Club, VIT Bhopal

- Orchestrated coding competitions and math workshops engaging 100+ participants
- Mentored 20+ junior students in advanced mathematics and algorithm design

## Innovation enthusiast | Smart India Hackathon

- Secured college finals placement, outperforming 150+ competing teams with innovative solutions.
- Pioneered AI-powered questionnaire based mental health diagnostic app prototype with 85% accuracy

#### Certifications

MERN Stack Specialist – Ethnus | Architecture, Performance, Security

 $\mathrm{Apr}\ 2025$ 

Web Development Mastery – IBM/Coursera | Modern JavaScript, Responsive Design

Jun 2024

#### **EDUCATION**

#### VIT Bhopal University

Bhopal, MP

Bachelor of Technology in Computer Science and Engineering - CGPA: 8.59

Nov 2022 - Present

## Maharana Pratap Education Centre

Kanpur, UP

Senior Secondary (12<sup>th</sup>) - 89%

High School (10<sup>th</sup>) - 96.6%

May 2021

Maharana Pratap Education Centre

Kanpur, UP

Jul 2019