

Nikhil Vasireddy

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SUMMARY

Aspiring Software Engineer with hands-on experience in full-stack development (MERN stack) and algorithms. Proficient in C++, Java, JavaScript, and Python, with strong foundations in data structures, OOP, and databases. Demonstrated ability to build secure, scalable applications and solved 450+ coding problems on LeetCode/GFG.

EDUCATION

Bachelor of Technology in Computer Science, IIIT Sri City

Expected 2026

CGPA: 8.6

Relevant Coursework: Data Structures, DBMS, Operating Systems, OOP, Computer Networks

Intermediate Education (MPC), FIITJEE Junior College, Miyapur, Hyderabad

2019–2021

Secondary Education, Aditya Talent High College, GangarajuNagar, Kakinada

2018–2019

TECHNICAL SKILLS

Languages: C++, Java, Python, JavaScript (ES6+), SQL, HTML, CSS

Frameworks/Libraries: React.js, Node.js, Express.js, EJS, Numpy, Pandas, Scikit-learn

Tools & Databases: GitHub, Redis, Docker, Swagger, MongoDB, MongoDB Atlas, Postman, JWT, WebSockets, Render

Other: REST APIs, MVC Architecture, Web Design, Database Indexing

PROJECTS

Quiz Management Platform (MERN Stack) [\[Code\]](#) [\[Live Demo\]](#)

- Developed a quiz app using **React.js** and **Node.js**, supporting **2 user roles: student and teacher**.
- Secured routes with **JWT-based authentication**, ensuring protection of restricted access.
- Structured data with a **4-schema MongoDB model** for users, quizzes, responses, and batches.
- Integrated **batch-wise result tracking** and a **leaderboard** for monitoring student performance.
- Optimized performance by adding Redis caching, reducing response time by **50%**.
- Deployed the application using **Docker containers**, ensuring environment consistency and easier scalability.

StartX - Venture Genesis (MERN Stack) [\[Code\]](#) [\[Live Demo\]](#)

- A Startup Funding & Management Platform, supporting 3 user roles: **Investor**, **Reviewer**, and **Startup**.
- Structured financial workflows using **EIR** and **GrantSchema** forms for funding and evaluation.
- Implemented automated emails and profile handling with **Nodemailer** and **Multer**.
- Built a real-time chat system with **Socket.io/WebSockets**, including investor broadcast messaging.
- Integrated startup performance **graphs and histograms** for clear analytics and insights.

Protein Prediction Using 3D Images (Deep Learning (ResNet-50, Custom Dataset)) [\[Code\]](#)

- Developed a deep-learning model to classify diseased proteins using **3D structural images**.
- Engineered a customized **ResNet-50** architecture by replacing the final layer with an **MLP classifier**.
- Created a **7000+** image custom dataset of **1600×1600** resolution protein images and trained efficiently on **T4 GPU**.
- Implemented an intelligent **patch-based training**, selecting only informative regions to reduce computation.
- Optimized using **Adam** optimizer and **ReLU** activation, applying deep-learning best practices for stable, fast convergence.
- Achieved **83% accuracy**, demonstrating strong performance on high-resolution protein imaging.

ACHIEVEMENTS

- **JEE:** Ranked in the **top 3%** out of 1,000,000+ candidates nationally.
- **Data Structures & Algorithms:** Solved **450+** **problems** across LeetCode and GFG, strengthening algorithmic thinking and problem-solving skills.
- **Public Speaking:** Delivered presentations and speeches to **150+** **audiences** across multiple events, demonstrating strong communication and stage presence.

LEADERSHIP

Team Lead for all major group projects throughout 4 years of coursework, managing task delegation, timelines, and delivery.

Co-Lead, Non-Technical Club – IIIT Sri City

Led and coordinated **300+** **members** across multiple initiatives; managed high-end technical equipment and represented the institute at external events.