Pavan Sai Teja Kondaiahgari

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Education

Indian Institute of Information Technology, Sri City — **Aug 2019 – June 2023**
Bachelor of Science in Computer Science (CGPA: 9.00) — *Sri City, India*

FIITJEE Junior College — **Aug 2017 – June 2019**
Intermediate - MPC, TSBIE (Percentage: 95.2%) — *Hyderabad, India*

Experience

NCorium - AsterQuanta — **July 2023 – Present**
Software Engineer - Data Science — *Bangalore, India*

- Designed and implemented a **LiDAR convention** to standardize data from multiple vendors, ensuring seamless integration, consistent data streams, and improved system reliability.
- **Minimized inaccuracies by 20%** at the source level and refined data capture by optimizing aggregator parameters.
- **Optimized storage by 50%** and accelerated data transmission by implementing an efficient **data serialization**.
- Developed a **Python** backend and **React** frontend application using **Plotly** to visualize data inaccuracies and assess algorithm impact on error rates, significantly accelerating the selection of high-accuracy models.
- Engineered efficient **C++** processing algorithms and an optimal, **lightweight front-end VMS**, enabling seamless video playback **without straining client resources** and allowed for significant savings in video start latency and size.

NCorium - AsterQuanta — **April 2023 – June 2023**
Software Engineer - Intern — *Bangalore, India*

- Designed and developed high-fidelity **pedestrian movement simulations**, generating realistic test data that enhanced pipeline validation, improved system robustness, and accelerated deployment of key features.
- Researched LiDAR sensor operations and implemented **interactive data visualizations** using **Matplotlib**, enabling better analysis of outputs, identifying anomalies, and improving debugging efficiency.
- **Troubleshoot, fix, test** software bugs and documenting updates for future development.

Projects

S-Process Funding | *React, Flask, MongoDB, Redux, D3, Plotly*   Demo Code

- Developed a **Full-Stack** Grant Recommendation platform replicating the S-Process used by Survival and Flourishing Fund, enabling **collaborative decision-making** for grant allocations.
- Implemented a scalable Flask back-end, secured with **JWT authentication** and **role-based access control**.
- Used Redux for **client state management** and D3 and Plotly for **interactive plots**, graphs, and sankey chart
- Established a seamless development environment by configuring **environment variables**, virtual environments, and dependency management, ensuring consistent builds and efficient team collaboration.

Kickstart | *React, NodeJS, MongoDB, Docker, Redis*   Demo Code

- **Led a team of 5** in developing a full-stack web application that helps entrepreneurs buy and sell startups.
- Architected and optimized the back-end logic of the application using NodeJS and MongoDB.
- Optimized application performance by implementing Redis for **efficient caching** and **containerized services** with Docker, ensuring seamless scalability and faster data retrieval.

Student Dashboard | *NodeJS, ExpressJS, MongoDB*   Demo Code

- Developed an aesthetic web application using HTML/CSS, Node, Express to **automate student's tasks**.
- Project was used by **1000+ university students** to manage academic performance and track their daily activities.
- Helps admin to collect in-depth performance analysis of all students and efficiently improve communication with them.

Pocket Cube Solver | *NodeJS, MongoDB*   Demo Code

- API that **computes all optimal** solutions for pocket cube or any random solution.
- Developed using NodeJS for the server and MongoDB to store pocket cube processed data.

Technical Skills

Languages: C/C++, Python, Java, HTML/CSS, JavaScript, SQL
Technologies/Frameworks: Git, TailwindCSS, ReactJS, NodeJS, Flask, AnyLogic, Redis, RabbitMQ, Docker
Other Skills: Data Structures and Algorithms, Object Oriented Programming, Database Management System, Web Dev
Databases: MongoDB, MySQL