Tejas Ajay Parse

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EDUCATION

Arizona State University, Tempe, AZ

May 2026 GPA: 4.0/4.0

Master of Science in Computer Science

Coursework: Databases Management, Cloud Computing, Systems Design, Statistics, Knowledge Representation, Natural Language Processing

Indian Institute of Information Technology, Sri City, India

May 2024

Bachelor of Technology in Computer Science

CGPA: 9.30/10

Coursework: Data Structures & Algorithms, Machine Learning, Reinforcement Learning, Object Oriented Programming, Data Mining

SKILLS

- Programming & Scripting Languages: Python, JavaScript, TypeScript, Java, SQL, NoSQL, PostgreSQL, HTMI, CSS, C++, C, Kotlin, MATLAB
- Frameworks and Libraries: React, Node.js, PyTorch, Android, Tensorflow, Pandas, Scikit, Express.js, Spacy, FastAPI, Bootstrap, Tailwind,
- Cloud Services: AWS & Azure (S3, Lambda, Blob Storage, Service Bus, Events, DynamoDB)
- DevOps: CI/CD, Git, Github, Agile, Linux, Jupyter, Flash, LangChain, Linux, VS Code IDE

EXPERIENCE

Software Developer

Psych for Life, Tempe, AZ

Dec 2024 - Present

- Developed reusable and scalable UI components in **React.js and TypeScript**, forming the foundational building blocks for interactive learning lessons while ensuring optimal performance with **Redux for state management**.
- Diagnosed and resolved critical, hard-to-detect bugs that caused website crashes by debugging React state issues, API failures
 (Node.js/Express.js), and database inconsistencies (MongoDB).
- Reviewed and optimized pull requests, enforcing best practices in code quality, performance optimization, and CI/CD workflows using GitHub Actions.
- Integrated **RESTful APIs**, improved database schema design in **MongoDB**, and optimized **server-side logic in Node.js and Express.js** to enhance application efficiency.
- Deployed and maintained application services on AWS (EC2, S3) and containerized components using Docker for better scalability.

Full Stack Dev Intern

DatStek, India

Jan 2024 - Jun 2024

- Created a Sports CMS utilizing ReactJs, and NodeJs, optimizing MongoDB aggregation pipelines by 14%.
- Delivered mobile and web applications for managing electoral campaigns using FastAPI, PostgreSQL, and React.
- Architected and implemented a legal document management suite using the PERN stack and Google Docs API, enabling admins to build
 dynamic templates for users to generate legal documents.

Full Stack Dev Intern

Settyl Tech Pvt Ltd, India

May 2023 - Sep 2023

- Collaborated on the company's **ReactJs micro frontend** architecture, developing inventory management modules.
- Responsible for engineering **20+ RESTful endpoints** within the **Node.js** backend microservice architecture.
- Migrated Kafka Events to Azure Event Hubs, reducing latency by 19% in inter-database synchronization.

Software Development Intern

Appscms Technologies, India

Jul 2022 - Nov 2022

- Crafted over **50+ GIF processing tools** to the platform's front end with **HTML, CSS, and Vanilla JavaScript**.
- Elevated platform performance to achieve 700,000 monthly sessions through feature development and testing.

PUBLICATION

• **Tejas Ajay Parse**, Tanishq Awasthi, Dushyant Yadav, Dr Piyush Joshi, "QAAD: Quality Aware Adaptive Denoising", IEEE 11th International Conference on Signal Processing and Integrated Networks (SPIN), March 21 – March 23, 2024, India

PROJECTS

Distributed Cloud-Based Image Processing System with Manual Autoscaler - Github

- Built a distributed image processing system using AWS S3, SQS, and EC2, enabling scalable and efficient task execution.
- Developed a FastAPI server to handle asynchronous uploads, queue requests, and manage responses, reducing processing latency.
- Implemented an EC2 auto-scaler to dynamically start/stop instances based on demand, optimizing cost and resource utilization.

PetSanctum - Github Website Demo

- A web app for finding adoptable animals, uploading pets, and requesting rescue for stray animals.
- Developed REST APIs using Express.JS with MongoDB as a persistence layer while utilizing React on the front end that follows the MVC Model and uses Redis for Caching which also is CI/CD pipelined.

Benchmarking LLMs for Logical Reasoning & Creating an Auto-Evaluator Agent - Report

- Evaluated and compared logical reasoning performance of LLaMA and ChatGPT using benchmark datasets like LogiQA and ARCT.
- Developed an error taxonomy to categorize reasoning failures, providing insights for improving reasoning chains in LLMs.
- Created an auto-evaluator LLM agent, achieving **81.98% accuracy** in categorizing reasoning errors based on the defined taxonomy.

ACHIEVEMENTS

- Achieved 1st place in Smart India Hackathon 2023 organized by Government of India, standing out among 200+ teams.
- Ranked globally at 3425 in Google Hashcode 2022 with 1,071,918 points (India Rank: 1456).
- Solved over **500 problems** on competitive programming platforms like **Leetcode**, **Codeforces** and **Codechef**.