

Tejas Ajay Parse

(623) 276-9100 | tparse21@gmail.com | linkedin.com/in/tejasparse | github.com/TejasParse

EXPERIENCE

- Software Engineer, Psych for Life (ASU) – Phoenix, AZ** Dec 2024 – Present
- Overhauled a manual, hardcoded image update workflow with a **React-based** asset management dashboard and a **Node.js + MongoDB** backed **AWS S3** ID resolution system, reducing update time **12x (1 hour → 5 minutes)**.
 - Engineered a **mobile-first**, reusable **React + TypeScript** content component library (WYSIWYG editor, calendar, priority modules) optimized for responsive layouts and touch interactions, **enabling non-technical managers to assemble structured content 2.4x faster**.
 - Improved **Node.js backend API** performance by refactoring multi-query **Node.js joins** into **single MongoDB aggregation pipelines**, reducing average endpoint latency by **40% (500ms → 300ms)** and lowering database load.
 - Implemented Role Based Access Control using **AWS DocumentDB** and **Cognito**, securing a customer-facing system for **1,000+ customers**.
- Software Engineer Intern, Master Electronics – Phoenix, AZ** Sept 2025 – Present
- Developed **200+ end-to-end and component tests** using **Playwright, Jest, and React Testing Library** as part of the automated testing workflow for a **Next.js** application, enabling faster quality assurance and reliable releases in a fast-paced agile development environment.
 - Built a **real-time Kafka-based ETL** pipeline to process **~14.4M daily ERP changes**, performing streaming transformations and ingesting data into **PostgreSQL**, replacing a **weekly batch sync**.
 - Upgraded a **weekly Elasticsearch** indexing job with a **2-hour refresh pipeline**, reducing search latency by **84x (7 days → 2 hours)**.
 - Contributed cross-functionally to **PO-Miner**, an **LLM-based** purchase order extraction system deployed on a **Python FastAPI backend** using **GPT-4o** and **Claude**, achieving **88% structured data accuracy** and enabling **4x faster sales processing**.
- Software Engineer Intern, Walnutech PBC – Phoenix, AZ** Jun 2025 – Aug 2025
- Automated CI/CD** for a **Python-based FastAPI ML backend** using **GitHub Actions** and **AWS Copilot**, streamlining the deployment phase of the agile software development lifecycle and reducing manual release effort by **70%**.
 - Redesigned database schema**, reducing table count by **30%** and **minimizing SQL joins** to improve query latency and lower database load.
- Software Engineer Intern, Datstek – Remote** Jan 2024 – Jun 2024
- Saved \$12000 annually** by developing an in-house legal document templating and signing system using **Node.js, React, and PostgreSQL**.
 - Built a **React Native mobile app** supported by **FastAPI/PostgreSQL** server for electoral campaigns, used by over **2000** of party members.
- Software Engineer Intern, Settyl Tech – Remote** May 2023 – Sep 2023
- Migrated** inter-database event streaming from **Kafka** to **Azure Event Hubs** across a **Node.js** system, reducing sync latency by **19%**.
 - Owned 2 of 12 React micro-frontend** modules in a distributed supply chain system, coordinating releases, and **mentoring a junior intern**.
- Software Engineer Intern, Appscms Technologies – Remote** Jul 2022 – Nov 2022
- Built **50+** browser-based client-side **GIF processing tools** in **JavaScript** using **HTML Canvas** for a platform serving **700K+** monthly sessions.

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, HTML, CSS

Software Development: React, Next.js, Node.js, FastAPI, Socket.io, NestJs, Redux, TanStack Query

Software Testing: Pytest, React Testing Library, Playwright, Jest

Databases: PostgreSQL, MongoDB, MySQL, DocumentDB, Elasticsearch

Cloud & Infrastructure: Docker, GitHub Actions, AWS, Azure, Apache Kafka, Spark, Databricks, Debezium

EDUCATION

- MS in Computer Science, Arizona State University** Aug 2024 - May 2026
Coursework: Cloud Computing, Mobile Computing, Software Testing, Multimedia and Web Databases **GPA: 4.0**
- B.Tech in Computer Science and Engineering, Indian Institute of Information Technology** Aug 2020 - May 2024
Coursework: Distributed Computing, Database Systems, Data Structure & Algorithms, Object Oriented Programming **GPA: 3.8**

PROJECTS

Is College Worth it? - D3.js Scrollytelling

- Served as **Software Architect** on a **team project**, leading the scrollytelling data visualization platform using **D3.js, JavaScript, HTML/CSS**.
- Designed an **innovative D3.js** tassel-based sunburst visualization enabling progressive, user-driven data disclosure on tassel pull.

Scalable Edge-Cloud ML Pipeline

- Simulated IoT devices using **EC2** instances and configured **AWS IoT Greengrass Core** and **Client** to edge-based **ML processing pipeline**.
- Implemented **decoupled** face detection on edge and face recognition using **Python MTCNN**, integrating with **SQS** and **AWS Lambda**.

LLM Logical Reasoning Evaluation with Auto-Evaluator Agent

- Evaluated logical reasoning performance of **LLaMA** and **ChatGPT**, developing an error taxonomy to categorize reasoning failures.
- Created an auto-evaluator LLM agent, achieving **81.98% accuracy** in categorizing reasoning errors based on the defined taxonomy.

ACHIEVEMENTS & LEADERSHIP

- Awarded the New American University Merit Scholarship of **\$9000** for outstanding academic performance.
- Winner, National Smart India Hackathon 2023 (Among 200+ teams) | Global Rank 3425, Google Hashcode 2022 (1,071,918 points)**
- Club President, Projects Club (IOTA) during B.Tech** – Organized bootcamps and hackathons impacting **1000+ students**
- Author of QAAD: Quality Aware Adaptive Denoising (IEEE 2024)**, proposed novel metric for optimal image denoising algorithm selection