

VARUN PARUCHURI

Backend Software Engineer | Python · FastAPI · REST APIs · PostgreSQL
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SUMMARY

Entry-level Software Engineer with hands-on experience building REST APIs and backend services in Python using FastAPI and Flask, plus data pipelines and machine learning workflows using Pandas and SQL. Built and deployed a live multi-service automation pipeline integrating LLM APIs, third-party data sources, and messaging APIs, running unattended in production. Also built a resume-screening and ATS-scoring engine combining LLM-based and offline heuristic matching, deployed serverless on Vercel. Comfortable coding, debugging, and testing in Linux environments with Git-based version control.

TECHNICAL SKILLS

- **Languages:** Python, Java, JavaScript, TypeScript
- **Backend & APIs:** REST API Design, FastAPI, Flask, Node.js, PostgreSQL, Drizzle ORM, Vercel
- **Frontend:** React, Next.js
- **AI & GenAI:** LLM Integration (Gemini 1.5 Pro, Groq/LLaMA 3.3 70B, OpenAI GPT-4o-mini), Prompt Engineering, AI-Driven Code Analysis
- **Automation & Integrations:** Make.com, SerpApi, Telegram Bot API, Google Sheets API
- **Data & Machine Learning:** SQL, Pandas, NumPy, Data Cleaning & Analysis, Model Evaluation
- **Core CS:** Data Structures, Algorithms, Operating Systems, Problem Solving
- **Tools & Practices:** Git, GitHub, Linux, VS Code, Agile, SDLC, DevOps Automation

WORK EXPERIENCE

Labmentix Pvt. Ltd.

Data Science / AI-ML Intern

Aug 2025 – Sep 2025
Bengaluru (Remote)

- **Designed and optimized ML preprocessing pipelines** in Python, boosting model accuracy and efficiency
- **Performed data cleaning and feature engineering** to extract actionable insights from structured datasets
- **Automated validation tasks with scripts**, cutting manual effort by 30% and ensuring data quality
- **Collaborated via GitHub and Linux workflows**, improving team reproducibility and experiment tracking

PROJECTS

[AetherOps: Real-Time SRE Codebase Analyzer](#)

May 2026

- **Built a codebase analysis tool** using Next.js, TypeScript, and Drizzle ORM with Neon PostgreSQL to scan repositories and surface potential runtime issues
- **Built an AI-assisted code-review pipeline** that recursively scans project structure, flags potential security issues, and generates suggested fixes ranked by severity
- **Integrated the browser File System Access API** for direct local folder access and file updates, with chunked streaming and debounced scanning to keep the UI responsive on large codebases

AI-Powered Job Search Automation Pipeline

Jul 2026

- **Built two scheduled workflows on Make.com** integrating SerpApi, Groq (LLaMA 3.3 70B), Google Sheets, and Telegram Bot API to source, deduplicate, and screen job postings across 12+ platforms
- **Used an LLM to score each posting** against a target profile and auto-generate tailored cover letters, reducing manual search and drafting effort
- **Built a second workflow to classify referral-offer posts** with an LLM, filtering spam from genuine opportunities and pushing verified matches via Telegram alerts

[Resume Screening & ATS Match Engine](#)

Jul 2026

- **Built a resume parsing and deduplication service** in Python/FastAPI that extracts structured candidate data (name, location, experience, skills) from PDF/TXT resumes, flagging duplicates via SHA-256 exact-match hashing, contact-based profile matching, and fuzzy similarity scoring (>88% threshold) for repackaged submissions
- **Built a dual-mode scoring engine** that routes resumes to Groq (LLaMA 3.3 70B) or OpenAI (GPT-4o-mini) for structured JD matching, with an offline heuristic fallback that scores locally via phrase mapping when no API key is configured
- **Synced results to Google Sheets via gspread** and generated exportable Excel shortlists; deployed as a serverless FastAPI app on Vercel, writing temporary assets to /tmp to work within its read-only filesystem

EDUCATION

Malla Reddy University

2022 – 2026

B.Tech, Computer Science and Engineering • GPA: 8.1 / 10

Narayana College

2022

Intermediate, MPC • GPA: 9.14 / 10

Sri Chaitanya School

2020

SSC • GPA: 9.84 / 10

CERTIFICATIONS

- Introduction to Python Programming
- Python Data Representations