

Akshat Kumar

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Professional Summary

Software Engineer with 2+ years of experience across full-stack development, data automation, and AI-assisted engineering. Currently building tax compliance automation pipelines at EY using Python, Polars, and LLM-powered agents. Experienced in leveraging **agentic AI workflows** (Claude Code, Anthropic API, GitHub Copilot) to accelerate development cycles. Prior experience architecting scalable React/Next.js frontends and Go-based backend systems, with a strong foundation in data structures and algorithms (500+ LeetCode).

Skills

- **Languages:** Python, Go (Golang), JavaScript/TypeScript
- **Data & Automation:** Polars, Pandas, FastExcel, NumPy, Matplotlib, Power BI, openpyxl, pdfplumber, Selenium
- **AI & Agentic Development:** Claude Code CLI, Anthropic Claude API, GitHub Copilot, Prompt Engineering, LLM-Powered Agents, Agentic Workflows, AI-Assisted Testing
- **Backend & Infra:** Docker, Linux (Debian), REST APIs, Microservices, Express.js, FastAPI
- **Frontend:** React.js, Next.js, Redux Toolkit, Tailwind CSS, Atomic Design
- **Databases:** PostgreSQL, MongoDB, Redis
- **Data Structures / Algorithms:** 500+ Questions on Leetcode

Experience

Ernst & Young (EY)

Data Automation Engineer — Tax Technology

Gurugram, India

March 2026 – Present

Tax Compliance Automation

- **End-to-End Workflow Automation:** Engineered Python pipelines (Polars, FastExcel) to automate tax compliance workflows, reducing manual data preparation time by **300+ hours annually**.
 - **High-Speed Data Transformation:** Architected transformation engines processing large-scale datasets (**50K+ rows/file**), delivering 100% accuracy in compliance-ready Excel outputs for GST filings (GSTR-1, 3B reconciliations).
 - **Intelligent Rule-Based Logic:** Developed automated tax categorization and conditional remark generation systems, eliminating human error in sensitive compliance reporting.
 - **Reconciliation & Data Integrity:** Built robust reconciliation modules with exception-handling checks to detect and flag mismatches across disparate tax datasets, ensuring audit-ready outputs.
 - **Resilient Parsing Engine:** Engineered scripts capable of parsing irregular real-world Excel structures including merged cells, inconsistent headers, and multi-sheet formats.
 - **Multi-Source Consolidation:** Streamlined data consolidation via automated VLOOKUP-equivalent merging workflows, minimizing manual intervention across multi-file tax reports.
- #### AI-Assisted & Agentic Development
- **Agentic Coding Workflows:** Integrated **Claude Code CLI** and **GitHub Copilot** into daily development, using AI-driven code generation and iteration to accelerate Python automation delivery by **60%**.
 - **LLM-Powered Document Agents:** Built intelligent parsing agents using the **Anthropic Claude API** to extract and structure unstructured tax data from PDFs and scanned documents, replacing brittle regex-based approaches.
 - **Prompt Engineering for Compliance:** Designed structured multi-step prompts and agentic pipelines combining OCR output with LLM reasoning for high-confidence, context-aware tax categorization.
 - **AI-Assisted Integration Testing:** Implemented LLM-generated test case workflows to validate compliance output accuracy across edge cases, catching data integrity issues before analyst review.

Independent Software Engineer

Self-Hosted Infrastructure & Open Source Research

Remote

Jan 2025 – Feb 2026

- **Homelab Architecture:** Designed and deployed a bare-metal server running **Debian 13** to host 24/7 internal services, focusing on network security and resource efficiency using Docker.
- **Network Security:** Engineered a secure remote access solution using **Cloudflare Tunnels** to expose specific services (Cockpit, Uptime Kuma) while keeping ports closed, securing endpoints with Cloudflare Access (OTP).
- **Go Transition:** Ported legacy Node.js applications to **Go**, utilizing Goroutines and Channels for concurrent data processing.

CAW Studios

Software Development Engineer 1

Jul 2024 – Jan 2025

Hyderabad, India

Client: Hoichoi (OTT Platform)

- **API Optimization:** Engineered data fetching layers utilizing caching strategies that reduced API loading times by **35%** and improved overall application throughput.
- **Authentication Systems:** Developed secure session management flows handling **500K+ monthly active users**, implementing Iron Session for stateless authentication.
- **Component Architecture:** Led the frontend development of the profile management system, implementing Atomic Design patterns to reduce UI inconsistencies.

- **Performance:** Engineered content personalization logic (maturity ratings) and optimized payload delivery, increasing user engagement metrics.

CAW Studios

Associate Software Development Engineer

Jul 2023 – Jun 2024

Hyderabad, India

Client: Novocuris (Healthcare)

- **Scalable UI Architecture:** Created a white-labeled templating system allowing 10+ hospital brands to customize UI/UX while sharing core functionality, reducing deployment time from months to 2 weeks.
- **Frontend Modules:** Developed 15+ reusable React components and patient management modules handling 1K+ records with strict data compliance.
- **Data Pipeline (Backend):** Architected a Python-based scraping engine (BeautifulSoup/Scrapy) capable of ingesting and processing **10,000+ records daily**.
- **API Development:** Built RESTful APIs using Express.js, reducing data access latency by **60%** through optimized query structuring.

Projects

Personal Finance Tracker API

Apr 2025

- Designed and implemented a modular Express.js backend with PostgreSQL for user authentication, expense management, and budgeting.
- Built features like behavioral scoring, notification engine, transaction ledger with reversals, and JWT-based secure APIs.
- Documented the system with a detailed **design doc** explaining architecture and design choices.

Education

Bennett University

B.Tech in Computer Science Engineering

2020 – 2024

CGPA: 8.7

Apeejay International School

12th CBSE Board PCM

2019 – 2020

Percentage: 88%

Certifications

- The Complete 2024 Web Development Bootcamp - Udemy