ABDULLAH BIN NASIR

+92 336 2263668 | abdullah.nasir7312@gmail.com | linkedin.com/in/abdullahnasir300 | github.com/SheikhAbdullahNasir

PROFESSIONAL SUMMARY

Software engineer with 1+ year of professional experience building backend systems, REST APIs and AI-powered applications. Works with Node.js, NestJS, Python, FastAPI, TypeScript, MongoDB and PostgreSQL, with hands-on experience integrating LLMs, building AI agents and designing tool-calling workflows. Comfortable taking features from API design and testing through debugging and deployment.

WORK EXPERIENCE

Aigu Mind | Junior Software Developer **Jul 2025 - Present**

- Built backend modules for an HR SaaS platform using Node.js, NestJS and MongoDB, covering users, roles and permissions (RBAC), employees, employee activities and employee relationships.
- Developed and maintained REST APIs with Node.js, Express.js and MongoDB, including JWT authentication and authorization.
- Building CellMind, an AI assistant for Microsoft Excel, using Python, FastAPI, React and local LLMs.
- Tested, debugged and documented APIs with Postman and Swagger, and took part in architecture planning to turn business requirements into maintainable code.

PROJECTS

CellMind | *Python*, *FastAPI*, *React*, *Office JS*, *Ollama*, *Electron*

- Built an AI assistant for Microsoft Excel that handles formula generation and explanation, data cleaning, charts, PivotTables and direct sheet edits from natural language.
- Designed an LLM gateway that routes requests between a local model (Qwen 3.5 via Ollama) and any OpenAI-compatible cloud provider, with automatic fallback to the local model if the remote call fails.
- Implemented LLM tool calling that lets the model profile ranges of up to 1 million cells, read bounded data chunks and run sheet actions, with confirmation required for destructive edits.
- Built a hybrid command parser, rule-based first with an LLM fallback, so common actions stay fast and work fully offline.

Patient Voice Agent | *Python*, *FastAPI*, *Vapi*, *GPT-4.1*, *Supabase*

- Built "Maya", a voice AI agent that lets patients register or update their records over a phone call, using Vapi with Soniox speech-to-text, GPT-4.1 and Vapi text-to-speech.
- Developed a FastAPI backend with Supabase and SQLAlchemy, with REST APIs and secured webhooks for live call events.
- Added shared validation and service logic, a real-time operations dashboard and 47 automated tests.

gemma-harness | *Python*, *Gemini API*, *Gemma 4*

- Built the Python backend for a reliability layer that sits between Gemma 4 agents and their tools, so failed tool calls are fixed or clearly reported instead of failing silently.
- Handled common agent failures by fuzzy-matching unknown tool names, converting wrongly typed arguments, retrying malformed calls, timing out slow tools, stopping repeated call loops and backing off on 429 rate limits, with every fix logged in a trace.
- Benchmarked against a plain agent loop on 37 stress prompts: silent failures fell from 13.5% to 2.7%, unsuccessful runs from 37.8% to 5.4%, and crashes from 9 to 0. Built with a team in 3 hours at MLH Hacktoberfest Hack Day Karachi.

DocScout | *TypeScript*, *React*, *Node.js*, *Express.js*

- Built and deployed a tool that analyzes public GitHub repositories and suggests small, evidence-backed contributions for new open-source contributors.
- Implemented rule-based documentation checks that flag typos, missing setup steps and unclear instructions.

EDUCATION

Bachelor of Science in Computer Science **Sep 2021 - Jul 2025**

Sir Syed University of Engineering and Technology

SKILLS

- **Languages & Frameworks:** JavaScript, TypeScript, Python, Node.js, Express.js, NestJS, FastAPI, React
- **AI & Automation:** LLM Integration (OpenCode, Gemini, Groq, OpenRouter), AI Agents, Tool/Function Calling, Voice AI (Vapi), Local LLMs (Ollama), Prompt Engineering, Workflow Automation (n8n)
- **Databases:** MongoDB, PostgreSQL, Supabase, SQL, SQLAlchemy
- **Backend Concepts:** REST APIs, JWT Authentication, RBAC, Webhooks, API Testing, Debugging
- **Tools & Platforms:** Git, GitHub, Postman, Swagger, Electron, Vercel, Netlify, Railway, AI-Assisted Development (Claude Code, Codex, Antigravity)