# Aahil Khan

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## SUMMARY

Full-stack developer and AI enthusiast with proven experience delivering scalable web, backend, and AI-powered applications. Adept at leading teams, architecting robust systems, and integrating LLM-driven features for real-world impact. Currently pursuing a B.E. in Computer Engineering and a Diploma in Programming from IIT Madras. Eager to contribute technical expertise to challenging, high-impact projects.

## EDUCATION

• **Thapar Institute of Engineering Technology** *Aug 2023 – Present*
*Bachelor of Engineering in Computer Engineering*
  ◦ CGPA: 9.38

• **Indian Institute of Technology Madras** *Sept 2023 – Present*
*Diploma in Programming*
  ◦ CGPA: 8.34

• **Saiyyid Hamid Senior Secondary School** *July 2022*
*Secondary Education*
  ◦ Grade: 93%

## PROFESSIONAL EXPERIENCE

• **Team Lead/ Full Stack Engineer — Thapar Edutube** *Patiala, India*
*Next.js, Express, Node.js, PostgreSQL FTS, Redis, Docker | Thapar University* Oct 2024 – Present
  ◦ Led a team of 3 developers to build the complete frontend (Next.js) and backend (Node.js) for *Thapar Edutube*, an exclusive lecture archive for 10000+ university students.
  ◦ Currently leading storage and hosting setup, coordinating with faculty to record and upload lectures.
  ◦ Designing teacher dashboards for managing course flow, uploading resources, and customizing lesson sequencing.
  ◦ Developed auxiliary tools, including a slot booking app for reserving lecture recording times and an admin dashboard for customizing course, chapter and lecture structures.

• **Backend Engineer — Datesheet Generator** *Patiala, India*
*Flask, MySQL, Jinja2, Python | Thapar University* Mar 2025 – Present
  ◦ Re-architected the in-progress datesheet generator project from Flask sessions to a MySQL-backed, multi-user dashboard system.
  ◦ Implemented secure login, multi-user support, and savepoint functionality to allow partial work resumption.
  ◦ Enhanced datesheet creation workflow for improved usability and reduced scheduling errors.
  ◦ Currently integrating with the university's PeopleSoft Oracle database to automatically fetch student, course, and faculty details and push finalized datesheets directly.

## PROJECTS

• **SkillMap — Personalized Learning Engine**
*Next.js, Express, Node.js, Qdrant, GPT-4* [O]
  ◦ Built AI-driven platform to generate personalized learning paths based on resumes and user goals.
  ◦ Implemented skill taxonomy embedding in Qdrant, enabling semantic search and peer skill-matching.
  ◦ Integrated OpenAI's GPT-4 for automated gap analysis and personalized recommendations, streamlining the learning path generation process.

• **Vehicle Parking App**
*Flask, Vue.js, SQLite, Redis, Celery* [O]
  ◦ Developed real-time parking management system with JWT authentication and granular role-based access.
  ◦ Integrated Redis caching and Celery-based scheduling, boosting API response speed by 35%.
  ◦ Built admin and attendant dashboards with live occupancy tracking and automated availability updates.
  ◦ Implemented scheduled reports and alerts for low availability, sent via email notifications.

## ACHIEVEMENTS

• **Innovation Award — Agentic AI Hackathon 2025** Organized by Ulster University (UK)

## SKILLS

• **Programming Languages:** Python, Java, C++, C
• **Web Technologies:** HTML, CSS, JavaScript, React.js, Next.js, Vue.js, Node.js, Express.js, GraphQL, Flask, Jinja2
• **AI & LLM Tools:** LangChain, OpenAI Chat Completions Endpoint, OpenAI Assistants API, Prompt Engineering
• **Search & Vector Systems:** OpenAI Embeddings, PostgreSQL FTS, Qdrant, Elasticsearch
• **Database Systems & ORMs:** PostgreSQL, MySQL, SQLite, Redis, SQLAlchemy, Prisma
• **Cloud Technologies:** AWS (EC2), Heroku, Vercel, Cloudflare Tunnels (cloudflared)
• **DevOps & Version Control:** Docker, Git, GitHub, Github Actions, CI/CD pipelines
• **Testing Frameworks:** Jest (unit testing), Postman
• **UI & Styling:** Bootstrap, MUI, Tailwind CSS
• **Other Tools & Technologies:** WSL, Kali Linux, REST APIs, Semantic Search, RAG