Sheethal Joshi Thomas - Software Developer

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WORK AUTHORIZATION

- US CITIZEN

EDUCATION

Cochin University of Science and Technology, School of Engineering (October 2022- June 2026)

Bachelor of Technology (B.Tech) - Computer Science and Engineering

EXPERIENCE

Software Developer Intern | KDex Global (On-site)

Durham, North Carolina - USA (May 2025 - July 2025)
- Engineered and optimized backend APIs in Golang and PostgreSQL, improving backend throughput by 25%.
- Directed the development and deployment of product documentation for the company's flagship product using React, Docusaurus, AWS S3, and CloudFront, enabling scalable self-serve support.
- Partnered with cross-functional teams (frontend, DevOps, and product) to design scalable backend architectures, reducing service deployment time by 15%.

Software Developer Intern | Global Health Opinion (Remote)

Kochi, Kerala - India (March 2025 - May 2025)
- Engineered scalable medical dashboards utilizing Next.js and TypeScript for real-time operational insights, integrating REST APIs; dashboards now used by 20+ doctors.
- Enhanced data load speeds by 20% via API optimization and frontend rendering improvements.
- Collaborated with a distributed team of engineers and healthcare specialists to define dashboard requirements and validate features, reducing post-deployment revisions by 15%.

ACHIEVEMENTS

- World Rank 18 - European Rover Challenge 2024 at Krakow, Poland (Lead of Navigation and Communications)
- Semi-Finalist - HackMIT, 2024 at Massachusetts Institute of Technology (MIT), USA
- Top 5 (Finalist) - TinkHack 2.0 (Kerala's Largest GenAI Hackathon)

TECHNICAL SKILLS

Languages: Python, C++, C#, Java, TypeScript, JavaScript, Go
Frameworks & Tools: React.js, Next.js, FastAPI, Node.js, Express.js, Docusaurus
Databases: MySQL, PostgreSQL, MongoDB Atlas
AI/ML Tools: OpenAI API, LangChain, Hugging Face Transformers, Deep Learning, TensorFlow, Scikit-learn, OpenCV, Keras
Cloud Platforms: AWS (S3, CloudFront)
Other: REST APIs, Selenium, Git, WebSockets, WebRTC, TCP/IP Networking

NOTABLE PROJECTS

AI DIAGNOSTIC ASSISTANT
- Built an AI-driven medical assistant using OpenAI Realtime API, Hume.ai, and GPT-4, enabling conversational symptom reporting with emotionally adaptive responses; processed 100+ simulated cases during testing.
- Designed and developed a React.js + TypeScript front-end and FastAPI + Python backend with structured triage logic, achieving 90%+ alignment with expert-defined outcomes.
- Earned Semi-finalist recognition at HackMIT 2024, MIT's flagship global hackathon, for innovation and technical excellence.

AI STUDY CONTENT CREATOR
- Created an AI learning companion that transforms content into interactive comic books, quirky podcasts, gamified concept maps, and other study formats, using behavioral analytics and NLP profiling; supported 5+ learning formats.
- Produced 50+ multimedia study aids during hackathon testing, dynamically adapting learning paths based on cognitive preference detection.
- Integrated DALL·E for custom visuals and GPT-4 for adaptive storytelling, reduced content generation time by ~3x compared to initial prototype.

ROVER WAYPOINT CONTROLLER
- Led a 6-member navigation and communications team in building and integrating the rover's autonomous navigation module for the European Rover Challenge 2024 in Krakow, Poland.
  Developed and tested a real-time autonomous navigation system with graph search algorithms and AI-based terrain classification, completing 200+ simulation runs with 95%+ waypoint accuracy across 5+ terrain types.
- Implemented live telemetry and video streaming using WebSockets and WebRTC, maintaining <300ms latency during field testing.

CERTIFICATIONS

- IBM Full Stack Developer Professional Certification
- ERC Space and Robotics Industry Standard Programme Certification (European Space Foundation)
- AWS Cloud Practitioner Certification (CLF-02)