

# A T Abbilaash

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## EXPERIENCE

### National Institute of Technology, Karnataka

May 2026 – July 2026

Research Intern

Surathkal, Karnataka

- Built a real-time robotic assistant using Edge AI, Transformers, OpenCV, ONNX Runtime and CNNs, enabling face recognition, object detection, ball tracking, and voice-controlled navigation
- Implemented an offline semantic question-answering system using MiniLM embeddings, ONNX Runtime, Vosk STT, and vector similarity search for real-time human-robot interaction

### LogIQ Labs Private Ltd (eShipz)

May 2026 – June 2026

Software Developer Intern

Bangalore, Karnataka

- Contributed to frontend development of a revamped product by implementing new features using React.js (Typescript)
- Improved compile-time performance and simplified product maintenance through codebase restructuring and optimization

### Indian Institute of Science Education Research, Bhopal

May 2025 – July 2025

Research Intern

Bhopal, Madhya Pradesh

- Developed a Quantum Simulation Framework for Cryptographic Attacks on Fingerprint-Based Authentication under the guidance of Prof. Dr. Kuntal Roy.
- Test vulnerabilities of public key sharing encryption algorithms

## PROJECTS

### Thirukkural.AI (Winner AI Consortium 2026 - GitHub)

- Developed an ontology-driven semantic search pipeline backed by RAG for 1300 thirukkurals. Created custom hybrid 13,300 sample scenarios dataset.
- Fine-tuned Gemini model with multi-layer graph with Google Vertex AI enabling Top-K retrieval with explainable responses and reduced hallucinations.

### Gated (Try Now - Deployed product)

- A web app enabling creators to monetize GitHub repositories and share trackable asset URLs that dynamically unlock content upon successful user verification.
- Engineered the system using a modular Blueprint architecture (Flask, NextJs, SQL) for clean API routing, and optimized the relational database with strategic indexing to drastically reduce URL-tracking query latencies. Instant Razorpay payment setup for payment gateway.

### SnapClass.AI (Special recognition at Qualcomm EdgeAI Hackathon - GitHub)

- Built on-device AI using Snapdragon Hexagon NPU & 12-core X Elite to run LLMs, image captioning, and audio transcription for personalized learning; deployed via Microsoft Store with Hugging Face, AnythingLLM, ONNX, and Dead Networks.
- Deployed in Microsoft Store: SnapClass.AI - Free download and install on Windows | Microsoft Store

## EDUCATION

### PSG College of Technology

Aug 2023 – Present

Computer Science and Engineering

Coimbatore, India

- **Expertise:** Specializing in Artificial Intelligence and Machine Learning
- **CGPA:** 8.02/10

## SKILLS

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**Languages** : Python, Typescript (ReactJs), SQL (MySQL), NoSQL (MongoDB), Dart (Flutter)

**Tools** : TensorFlow, GitHub, AnythingLLM, Google Vertex AI, Flask, Ollama, Protege, GitHub Actions, Google Lighthouse, Docker, Machine and Deep Learning, AWS (EC2, Amplify), EdgeAI (Raspberry Pi, NPU, Nvidia Jetson)

**Soft Skills** : Team work, Adaptability, Quick Learning and Implementation