Ashish H

ECE(Major) | CSE(Minor)
Majors in Electronics and Communication
Minors in Computer Science
PES University, RR Campus

+91-9743717594
ashishappu14@gmail.com
ashish-h.github.io
linkedin.com/in/ashish-h-352a8a179/

Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. (ECE Major)	PES University, RR Campus	8.96	2019-2023
B.Tech. (CSE Minor)	PES University, RR Campus	9.00	2019-2023

Experience

- **Egnyte** *January 2023- Present (FTE from July 2023)*
  Software Engineer Remote
  - Spearheaded the end-to-end development of customer-facing Generative AI features, including the Egnyte Global Copilot, by designing and implementing scalable microservices and REST APIs with Spring Boot and a dynamic frontend using React and Typescript. This initiative enabled secure, enterprise-grade document processing.
  - Owned the 'Bring Your Own Model' (BYOM) feature from concept to deployment, leading the system design, REST API development, and database architecture using PostgreSQL. Managed the full lifecycle by deploying the service via Docker and Kubernetes on Google Cloud Platform(GCP) and subsequently audited customer traction and feature performance using Kibana and Google BigQuery.
  - Established a robust automation framework for all AI features by developing comprehensive test suites in Python with Pytest, which were integrated into a Jenkins CI/CD pipeline. This initiative guaranteed the quality and reliability of AI-generated responses amidst continuous code changes and included mentoring interns on automation best practices.

- **Egnyte** *January 2023-June 2023*
  Software Engineer Intern Remote
  - Engineered and contributed to an AI-powered Knowledge Based Assistant by leveraging Langchain, LLMs, and Java Spring Boot, which slashed response latency by 40%. This established a key revenue-generating USP, directly contributing to significant ARR growth. Also secured the first place in Egnyte Hackathon 2024 for innovative AI implementation that demonstrated product differentiation potential.
  - Enhanced high-volume data processing capabilities for the Content Migration team by developing and optimizing performance-critical microservices in Go. Additionally, accelerated core feature delivery as an intern by mastering Java, Spring, and React to contribute to critical Cloud File Store functionalities like Snapshot Restore.

- **Indian Institute of Science** *June 2022-Aug 2022*
  Research Intern Bangalore
  - Implemented precise point-to-point autonomous navigation for a warehouse robot using ROS, SLAM (GMapping), OpenCV and developed a novel QR code-based localization system to overcome wheel slip issues and achieve accurate positioning.
  - Integrated multiple sensors (RPLidar A3, Intel RealSense D435i, WIT IMU) with ROS for environment mapping and HuggingFace for lite obstacle detection models, enabling autonomous navigation with the DWA (Dynamic Window Approach) planner for efficient path planning.

Projects and Publications

- **Sahayak - AI-Powered Teaching Assistant** *Google Agentic AI Hackathon*
  Hackathon Project 2025
  - Developed Sahayak, an AI-powered teaching assistant for Indian educators. I architected and built this platform using LangChain, LangGraph, Agentic AI and the Gemini API, creating a multi-agent system to support teachers in multi-grade, multilingual, and resource-constrained classrooms
  - Implemented a four-agent architecture to handle key educational tasks: VidyaMitra (a multimodal teaching assistant), SmartEval (an automated grading system), ConceptCanvas (a visual content generator), and SelfEval (a performance tracking tool). This system enables real-time lesson planning, assessment creation, and educational content generation, streamlining teacher-assistant interactions.

- **Low Resource Speech-to-Speech Translation of English videos to Kannada with Lip-Synchronization**
  IEEE Xplore, ICICCS-2023
  - Devised a speech-to-speech translation system with Automatic Speech Recognition(ASR), Neural Machine Translation(NMT), Text to Speech(TTS), and lip-synchronization; achieved BLEU score of 85.26% for translation, MOS of 4.56 for lip-synced video, and MOS of 4.94 for synthesized audio, enabling seamless audio-visual alignment.

- **Non-sequential Indexing of Videos using Linguistic Computation**
  IEEE Xplore, ICACRS-2022

  - Developed a non-sequential video indexing system leveraging ASR, Natural Language Processing(NLP), Natural Language Toolkit(NLTK), and Optical Character Recognition(OCR) to auto-generate keyword-based timestamps with a tolerance of ±2s from ground truth.

- **Estimation of Engagement of Learners in MOOCs using Smart Visual Processing**
  Elsevier Series, ICDAM 2021
  - Developed a computer-vision-based system for real-time student engagement estimation in online lectures using gaze detection, head pose estimation, drowsiness detection, and anti–video-spoofing models to quantify learners' attention.

Technical Skills

- **Programming:** C, C++, Python, Java, Go, Typescript
- **Libraries/Frameworks:** Pandas, NumPy, Scikit-learn, TensorFlow, HuggingFace, Keras, PyTorch, OpenCV, LangChain, LangGraph, Spring, Spring Boot, Django, MySQL, WebDriverIO (WDIO), Jest, Webpack, Flutter, JUnit5, Mockito, Elastic Search, Elastic Cache, Kafka, PyTest, Flask, NLTK
- **AI/ML/DL:** Generative AI (GenAI), Retrieval Augmented Generation (RAG), Large Language Models(LLMs), Agentic AI, Model Context Protocol (MCP), Transformers, Computer Vision
- **Tools & Platforms:** Git, Jira, Jenkins, Postman, Continuous Integration(CI), Continuous Delivery/Deployment(CD), Docker, Kubernetes, Linux, Shell Scripting, Google Cloud Platform, Kibana, Jetson, Mentor Graphics, Wireshark, Jupyter, NPM, Maven, LaTeX, Cloud Technologies like GCP, AWS, Google Firebase, BigQuery, Redis
- **Web Technologies:** HTML, CSS, Javascript, React.js, Node.js, Streamlit
- **Databases:** ChromaDB, FAISS, PostgreSQL
- **Development Methodologies:** Agile Methodology, REST API Design, Version Control, Microservices Architecture, Unit Testing, Functional Testing, Automation Tests, Exploratory Data Analysis

Achievements

- **Selected to be part of the offline Google Agentic AI Hackathon** Selected as one of 700 shortlisted teams among 57,000+ developers at BIEC, Bangalore for developing Sahayak, an AI-powered teaching assistant. *2025*
- **Secured the first place in Egnyte Hackathon 2024** Awarded for innovative AI implementation that demonstrated product differentiation potential *2024*
- **5x M.R.D Scholarship Awardee at PES University** Awarded to top 20% of the students on the basis of thier Grade Point Average *2019-2021*
- **Awarded 1st Runner up and secured a cash prize of 25,000** HashCode-2K21 organized by Microsoft Innovation Lab *2022*
- **Awarded 1st Runner-Up** The Kannada Hackathon *2022*
- **Ranked amongst top 6 (99.04%) out of 8.5 lakh students in Karnataka** SSLC Examination *2017*