# Guruprasath Maheswaran

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#### **Education**

## **Amrita Vishwa Vidyapeetham**

October 2021 - Present

Bachelor of Technology, Computer Science & Engineering

Coimbatore, India

#### **Experience**

#### Amazon ML Summer School 2024, Amazon

July 2024 - Aug 2024

• Selected for the ML School with participants from across India, guided by **Amazon scientists**.

Remote

Gained insights into how **Gen AI** and **LLMs**, boosted operational efficiency at Amazon by 20%.

### **Project Contribution: SAP Labs**

Feb 2024 - Apr 2024

• Revamped **SAP Concur** with a team of 6, improved UX, and added critical business features.

Remote

Built a web app using Next.js and Express.js, hosted on Microsoft Azure with MySQL.

# **Projects**

Explainable AI in Health Care | TensorFlow, Keras, scikit-learn, Matplotlib | GitHub Link

Team Project

- Enhanced CNN model interpretability by implementing **Grad-CAM visualization**, highlighting key regions in images influencing predictions, with findings under conference review.
- Developed a **feature extraction pipeline** for deep learning models to improve data preprocessing and the quality of input data, leading to improved model performance.

**Trip Estimation Application** | Next.js, Express.js, Tailwind CSS, MySQL, Postman, Azure VM | **Frontend -** GitHub Link, **Backend -** GitHub Link

Team Project

- Led a 6-member team to develop a full-stack web application for estimating trip costs during reimbursement requests and approvals, collaborating with SAP Labs India.
- Implemented **role-based authentication** (for applicants and approvers) with dual-interface redirection using **PASETO**, enhancing security and user experience.

Grocery Product Identification System | Next.js, FastAPI, TensorFlow, Tailwind CSS | GitHub Link Individual Project

- **Designed and developed** a full-stack image-based product identification system using TensorFlow models (ResNet50, MobileNetv2, DenseNet169) for accurate real-time predictions.
- Architected a high-performance **image processing pipeline**, leveraging OpenCV for preprocessing and optimizing model inference, achieving a **40% reduction in latency**.

Gringotts Vault | Next.js, Appwrite, ShadCN, Tailwind CSS, TypeScript | GitHub Link

**Individual Project** 

- Developed a **Google Drive-inspired file storage app**, implementing secure **user authentication and file management** using Appwrite and real-time features like upload, download, and sharing.
- Designed a responsive UI with Tailwind CSS and ShadCN, optimized for performance with Next.js and React, ensuring **scalable and efficient** file storage and management.

#### **Technical Skills**

**Languages and Frameworks:** Python, Java, HTML5, CSS3, JavaScript, MySQL, PostgreSQL, React, Next.js, Express.js, TypeScript, Tailwind CSS, FastAPI, LangChain

**Tools and Technologies:** Git, GitHub Actions CI/CD, Linux, Visual Studio, Figma, Hugging Face, Jira, Aceternity UI, Postman, Azure VM, Docker, Kubernetes, Streamlit, TensorBoard, Appwrite, ShadCN

## Extracurricular

- → Event Manager: Organized the Intel OneAPI Hackathon under IETE, with prizes worth ₹1,25,000.
- → Workshops Organizer: Coordinated workshops while networking with industry professionals.
- → Project Manager: Managed communication and client support as SPOC for an SAP project.