# 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 an ML program guided by **Amazon scientists** from over 20,000+ applicants.
- Gained insights into how **Gen AI** and **LLMs**, boosted operational efficiency at Amazon by 20%.

## Project Contribution: SAP LABS, India

Feb 2024 - Apr 2024

- Revamped **SAP Concur** with a team of 6, improving UX and adding critical business features.
- Built a **RESTful web app** with Next.js, and Express.js, hosted on Azure (99.9% uptime).

## **Projects**

## Explainable Al in Health Care | TensorFlow, Keras, scikit-learn, Matplotlib | GitHub

- Enhanced CNN transparency with Explainable AI **(XAI)** techniques, achieving a 40% increase in interpretability ratings from user studies. Currently **under conference review**.
- Focused on feature extraction, implemented **Grad-CAM**, and **leveraged HPC resources** to achieve a 60% reduction in processing time with documentation and statistics for reference.

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

- **Led a six-person team** to develop a scalable trip cost estimation app, with a strong emphasis on **Agile software development** for efficient releases, testing, and solutions.
- Implemented **role-based authentication** (applicants and approvers) with dual-interface redirection using **PASETO**, and **optimized DBMS strategies**, improving performance by 30%.

#### Grocery Product Identification System | Next.js, FastAPI, TensorFlow, Tailwind CSS |

- **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**.

#### Skills

**Languages and Frameworks:** C, C++, Python, Java, Haskell, MySQL, PostgreSQL, HTML5, CSS, Sass, JavaScript (ES6), Bootstrap, React, Express.js, Next.js, TypeScript, Jest, Tailwind CSS, LangChain

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

#### **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.