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, HTML5, CSS, JavaScript (ES6), React, Next.js, Express.js, TypeScript, Tailwind CSS, LangChain

Tools and Technologies: Git, GitHub Actions CI/CD, Linux, Visual Studio, Figma, Hugging Face, Jira, Aceternity UI, Postman, Azure VM, GraphQL, 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.