Guruprasath Maheswaran

[in] **LinkedIn**   [O] **GitHub**   🌐 **Portfolio**

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EDUCATION

Amrita Vishwa Vidyapeetham	Expected Graduation, July 2025
Bachelor of Technology, Computer Science and Engineering	***Coimbatore, India***

EXPERIENCE

Project Mentee	February 2024 - April 2024
SAP Labs — *Certificate*	***Remote***

- Worked in a team of six to **enhance SAP Concur**, addressing key issues and improving the user experience.
- Deployed the application on Microsoft Azure with MySQL, ensuring scalability and optimized performance.

PROJECTS

Explainable AI in Health Care | Python, TensorFlow, Keras, scikit-learn, Matplotlib ↗ — *Team Project*

- **Achieved 97% accuracy** in detecting Parkinson's disease across **10,000+ radiological images** using CNN. Enhanced transparency with **Grad-CAM**, pinpointing key features influencing the predictions.
- Engineered an advanced data preprocessing pipeline that **accelerated training cycles by 3x** and improved model convergence by 28% through **automated feature extraction and normalization**, optimizing the data flow.

Trip Estimation Application | Next.js, Express.js, MySQL, Postman, Azure VM ↗ — *Team Project*

- Optimized trip cost estimation for reimbursement requests and approvals, reducing approval cycles by 35% through a **dual-interface workflow** with multiple approvers and role-based authentication by using **PASETO tokens**.
- Delivered **99.99% uptime** by deploying on Azure VMs with auto-scaling and load balancing, ensuring high availability and seamless performance for **300+ concurrent users**, even under peak load conditions.

Grocery Go | Python, TensorFlow, FastAPI, Next.js, Tailwind CSS ↗ — *Individual Project*

- Engineered a high-precision product identification system achieving **98% accuracy** with custom-trained TensorFlow models (**ResNet50, MobileNetv2, DenseNet169**) for accurate real-time predictions.
- Designed a high-performance image processing pipeline, utilizing **OpenCV** for advanced preprocessing and optimization of model inference, **reducing inference latency by 30%** and memory consumption by 27%.

Gringotts Vault | Next.js, Appwrite, ShadCN, Tailwind CSS, TypeScript ↗ — *Individual Project*

- Developed a secure file storage application with **real-time file management features** and sharing capabilities using Appwrite, featuring end-to-end encryption and granular permissions, **ensuring SOC 2 compliance**.
- **Elevated web application performance** using techniques like Server-Side Rendering, Image Optimization, and Tree Shaking, **secured a Lighthouse score of 95+**, with perfect 100 in Best Practices and 97 in Accessibility.

TECHNICAL SKILLS

Languages and Frameworks: Python, Java, JavaScript, HTML5, CSS3, React, Next.js, Node.js, Express.js, TypeScript, FastAPI, MySQL, TailwindCSS, ShadCN, Aceternity UI.

Cloud and Development Tools: Microsoft Azure (VM), Google Cloud Platform (GCP), Visual Studio Code, Cursor, Streamlit, Hugging Face, Appwrite.

DevOps Tools: GitHub, GitHub Actions CI/CD, Docker, Kubernetes, Postman.

ACHIEVEMENTS

Amazon ML Summer School Student	February 2024 - April 2024
Amazon	*Remote*

- Selected for the ML Summer School among top participants across India, mentored by **Amazon scientists**.
- Gained insights into how Generative AI and LLMs boosted **operational efficiency at Amazon by 20%**.

EXTRACURRICULAR

- **Event Manager:** Organized the Intel OneAPI Hackathon under **IETE**, with prizes worth *INR 1,25,000*.
- **Workshops Organizer:** Coordinated workshops while networking with industry professionals.