

# Guruprasath Maheswaran

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## EDUCATION

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**Amrita Vishwa Vidyapeetham**

*Bachelor of Technology, Computer Science and Engineering*

October 2021 - Present

*Coimbatore, India*

## EXPERIENCE

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**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

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

- **Achieved 97% accuracy** detecting Parkinson's disease across **10,000+ radiological images** using an optimized CNN. Enhanced model 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**.
- Achieved **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 SOC2 compliance**.
- **Optimized web application performance** using techniques like Server-Side Rendering, Image Optimization, and tree Shaking, **achieving a 95+ Lighthouse score**, with perfect 100 in Best Practices and 97 in Accessibility.

## TECHNICAL SKILLS

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

**Cloud and Development Tools:** Microsoft Azure (VM), Google Cloud Platform (GCP), Hugging Face, Visual Studio, Figma, Streamlit, TensorBoard, Appwrite

**DevOps Tools:** Git, GitHub Actions CI/CD, Docker, Kubernetes, Jira, Postman, Aceternity UI

## ACHIEVEMENTS

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**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 Gen AI and LLMs boosted **operational efficiency at Amazon by 20%**.

## EXTRACURRICULAR

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- **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.