UNNATI RAMESH BABRUWAD

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EDUCATION

Master of Science in Computer Science, University of Southern California **Expected Dec 2024**
Los Angeles, CA, USA *GPA: 3.85/4*
Coursework: Analysis of Algorithms, Database Systems, Web Technologies, Game Development

Bachelor of Engineering in Computer Science, KLE Technological University **Jun 2020**
Hubballi, Karnataka, India *GPA: 9.13/10*
Coursework: Data Structures, Operating System, Computer Organization and Architecture, Machine Learning, Object Oriented Programming

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, C#, C, PHP **Databases:** PostgreSQL, MySQL, MongoDB, DynamoDB

Web Technologies: HTML, CSS, ReactJS, Angular, NodeJS, ASP.NET, ADO.NET, Flask, AJAX

Software tools: Grafana, Prometheus, AppDynamics, Docker, Git, Numpy, Pandas, Android Studio, Selenium, Kubernetes, AWS, GCP, Azure, Unity

Certification: Front-End Web Development with React, HackerRank Problem Solving Basic and Intermediate

WORK EXPERIENCE

Software Engineer | Mercedes Benz R&D India, Bengaluru, India **Oct 2020 - Jul 2022**

- Developed a real-time monitoring framework with **Grafana**, **Prometheus**, and **AppDynamics** for CI/CD and Collaboration apps
- Identified critical business **KPIs** and architected drill down dashboards for enhanced visualization and detailed data analysis
- Streamlined operations by automating **Jenkins** log data extraction through **Groovy** and **Python** scripts, transforming into a format optimized for dashboard integration
- Demonstrated a proactive stance by orchestrating the upgrade of machine and app agents across 40 servers, effectively neutralizing the Apache log4j vulnerability
- Developed custom metrics for various applications in **AppDynamics**, resulting in adept performance monitoring and dynamic data visualization on the AppDynamics dashboard

INTERNSHIPS

Summer Intern | Rhoman Aerospace, Los Angeles, United States **Jun 2023 - Jul 2023**

- Generated synthetic tree dataset in **AirSim**, comprising of 16,000 RGB images and approximately 1 million segmented images
- Trained **YOLOv8** object detection model with 80% accuracy on the drone images of trees and forests

Research Intern | Mercedes Benz R&D India, Bengaluru, India **Jan 2020 - Jun 2020**

- Created a real-time Traffic Sign Detection and Recognition Module with 85% accuracy using **Faster RCNN** and **YOLOv3** algorithms
- Trained Traffic Sign Recognition (TSR CNN) with **VGGNet** on a dataset comprising 43 classes, achieving 99.84% training accuracy
- Performed Data augmentation by combining COCO dataset with German Traffic Database (GTSDB) to create 20k+ additional images
- Preprocessed Mapillary Traffic image dataset which contained over 100,000 images with 300+ traffic sign variations

Project Intern | Elegocart Technology Pvt. Ltd, Hubli, India **Jul 2018 - Oct 2018**

- Developed a highly customizable Android application for a hospital, utilizing the capabilities of AWS EC2, to optimize and streamline the management of patient records
- Designed a robust **Android** application for a local water plant, enabling secure NFC Card authentication for water dispensing, while prioritizing user convenience and enforcing controlled access measures

PROJECTS

Web Scraping of Online Immigration Forms | INSZoom Industry **Jan 2019 - Jun 2019**

- Created a dynamic automated tool using **HTML** Agility Pack and **Selenium** in **C#** on the Microsoft Visual Studio platform to crawl, scrape, and notify end users of changes in immigration forms from government websites

AR Guido | Smart India Hackathon **Jan 2019 - Mar 2019**

- Engineered an **Augmented Reality 3D** Build and Assembly App for Cardboard Models, utilizing **Unity** for development, **Blender** for 3D product modeling, and **Vuforia** SDK for AR deployment.

Organic Recycler | Engineering Design Course Project **Jan 2018 - Jun 2018**

- Developed and deployed an **Android** application on **AWS EC2** instance, facilitating seamless interaction with Organic Recycler for the conversion of green waste into compost.
- Implemented robust machine control functionalities and real-time status notifications through **NodeMCU** integration, resulting in efficient machine operation and monitoring.

AWARDS AND CO-CIRRICULARS

- Received the **Mercedes-Benz Bronze Star** for outstanding contributions to the project and event organization. **Mar 2022**
- Leadership Mentor, Mercedes Benz R&D India **Oct 2021**
- National Finalist in Larsen & Turbo (L&T) Techgium 2019, outperforming 180 participating teams nationwide **Jun 2019**
- Technical Event Organizer, Pleiades – Annual College Fest **Mar 2018**