Anshul Anilkumar Mundakatil

San José, CA

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Education

San Jose State University   **Aug 2023 − May 2025**
Master of Science in Engineering   *GPA: 3.61*
Relevant Coursework: Artificial Intelligence and Data Engineering, AI Tools and Practice for Systems Engineering, Reinforcement Learning and Large Scale Models, Engineering Analysis Probability and Statistics, Natural Language Processing

SRM University   **Jul 2017 − Jun 2021**
B.Tech Computer Science and Engineering   *GPA: 3.54*
Relevant Coursework: Machine Learning, Database Management Systems, Data Structures and algorithms, Artificial Intelligence

Technical Skills

Languages & Scripting: Python, SQL, C++, C, Java, HTML, CSS, Matlab, JavaScript, Powershell, PHP
Frameworks & Libraries: TensorFlow, PyTorch, Scikit-learn, Flask, OpenCV, Pandas, NumPy, Matplotlib, Hugging Face, keras
Platforms & Tools: MySQL, Tableau, Power BI, AWS, Azure, Docker, Kubernetes, Git, SharePoint, RESTful APIs, Android Studio

Experience

San Jose State University   **Aug 2023 − present**
Graduate Research Assistant: Agentic AI in Network Slicing   *San Jose, United States*
- Spearheading the development of a **Multi Agent** framework for dynamic network slice management in **Open RAN**, leveraging RAG models to autonomously translate user intent into precise **QoS parameters**
- Engineered **Deep learning pipelines** augmented with **Graph Retrieval-Augmented Generation** (RAG) to classify network slices, enabling real-time adaptive resource orchestration based on **KPI driven slicing**
- Built a standards-compliant O-RAN **Testbed** with performance monitoring and resource management using collaborative learning

eCampus SJSU   **Oct 2023 − present**
Graduate Student Assistant   *San Jose, United States*
- Assist in the development and maintenance of eCampus websites on **Modern Campus** framework
- Build a GPT-powered **MultiPDF Chat App** leveraging **Instructor embeddings**, **Faiss** (Langchain) for vector storage, and **AWS SageMaker** for scalable model deployment, enabling faculty-controlled PDF queries
- Provide **expert insights** into modern AI/ML technologies, discussing and developing their applications in education

Tata Consultancy Services   **Jul 2021 − Jul 2023**
Software Engineer   *Hyderabad, India*
- Analyzed and deconstructed legacy **SharePoint Online** sites, **InfoPath** forms, and **Nintex** workflows, architecting modernized solutions using **SharePoint Framework (SPFx)** and **Power Platform**
- Led data migration efforts using **ShareGate**, **Azure Data Factory**, and **PowerShell**, streamlining the transfer of structured and unstructured data while ensuring 99%+ accuracy in migrated content
- Developed and optimized **RESTful APIs** and **Microsoft Graph API** integrations to facilitate data access, automate workflows, and enhance interoperability between legacy and modern environments
- Designed and implemented **CI/CD pipelines** in **Azure DevOps**, streamlining deployment processes and reducing manual effort by 70%, ensuring efficient rollouts
- Created enterprise-grade **Power BI dashboards**, integrating **Azure SQL Database** and REST API, automating data ingestion and transforming complex datasets into interactive visualizations

Gujarat Alkalies and Chemicals Limited   **May 2019 − Aug 2019**
Software Engineer Intern   *Vadodara, India*
- Architected a scalable Employee Management System leveraging **MySQL** for over 8,300 records
- Constructed a secure **RESTful API** with **Flask**, implementing role-based access and enhancing queries for faster responses
- Created a responsive front-end using **HTML5** and **CSS3** with data visualization for actionable insights

Projects

Harvest Disease Detection | *Python, TensorFlow, Java, Android Studio, Flask*   **Jan 2024 − Aug 2024**
- Developed a **PSO-CNN based** mobile application to classify rice diseases under complex backgrounds
- Processed and trained on a dataset of **3,829 images**, optimizing CNN hyperparameters using **Particle Swarm Optimization (PSO)** for enhanced feature extraction
- Constructed a scalable **Flask API** for integration between the model and Android app, for real-time disease classification

Dysarthric Speech Classification | *Python, OpenSMILE, Matlab, Audio Feature Extraction*   **Aug 2020 − Jun 2023**
- Engineered a solution for recognizing dysarthric voices with improved accuracy compared to traditional methods
- Processed **17,000 audio files** (dysarthric and healthy speech) and transformed them into two feature sets: **12 glottal features** using the Aparat tool and **6,552 acoustic features** with OpenSMILE
- Combined both feature sets to train SVM models, attaining a **94.13%** accuracy in classifying dysarthric speech

Awards / Certifications

- PL 900, Microsoft Power Platform Fundamentals, Certifying Authority: Microsoft
- Data Structures and Algorithms Expert Level, Coding Practices in Elab, Srm/Elab
- Applied Plotting, Charting & Data Representation in Python
- C++ Expert Level, Coding Practices in Elab, Srm/Elab