Anshul Anilkumar Mundakatil

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OBJECTIVE

Graduate with a Bachelor's in Computer Science and Engineering, currently pursuing a Master's in Engineering (Interdisciplinary Engineering) with a Specialization in Machine Learning and Data Science at SJSU. Seeking internship roles as a Machine Learning and Artificial Intelligence Engineer.

EDUCATION

Master of Science in Engineering, San José State University Aug 2023 – May 2025 | GPA: 3.53
Relevant Coursework: *Artificial Intelligence and Data Engineering, Artificial Intelligence and Cybersecurity, Engineering Analysis, AI Tools and Practice for Systems Engineering, Systems Engineering, Reinforcement Learning and Large Scale Models.*

B.Tech Compter Science and Engineering, SRM University Jul 2017 – Jun 2021 | GPA: 3.54
Relevant Coursework: *Machine Learning, Artificial Intelligence, Python Programming, Database Management Systems, Data Structures and algorithms, Java, Object oriented programming using C++, Web programming.*

PROFESSIONAL EXPERIENCE

Student Assistant, *eCampus, San Jose State University* Oct 2023 – present
- Provide technical assistance to support online learning programs and projects for SJSU faculty and students
- Assist in design, development, and maintenance of eCampus websites, and create documents and reports to support eCampus projects

Systems Engineer, *Tata Consultancy Services, Hyderabad, India* Jul 2021 – Jul 2023
- Designed and optimized SharePoint 2013 and SharePoint Online sites for enhanced user experience.
- Developed efficient workflows using Nintex and Power Automate.
- Created forms using Power Apps and InfoPath 2013 to augment migration solutions.
- Contributed to the migration of data and solutions to SharePoint Online, improving productivity.
- Generated data-driven insights by producing detailed reports on Power BI.

IT Intern, *Gujarat Alkalies and Chemicals Limited, Vadodara, India* Jun 2019 – Jul 2019
- Developed the Employee Module project, demonstrating proficiency in key skills such as database management systems (DBMS), SAP, ABAP, fundamental Java scripting, and data analytics
- Effectively employed SQL commands to manipulate data and actively contributed to the maintenance and management of the company's database

PROJECTS

Cybersecurity in Edge Computing using ML/AI Aug 2023 – present
- Developed a cybersecurity framework using ML and AI techniques to fortify Edge Computing environments against critical cyber threats
- Utilized Random Forest and Neural Networks to detect malware in Android/Edge devices, identify DDoS attacks in cloud platforms/base stations, and perform intrusion detection in virtual machines via Virtual Machine Introspection (VMI), encompassing edge computing components

Artificial Intelligence and Data Engineering Projects Aug 2023 – Dec 2023
- **Informative Search using A* Algorithm and Comparison to Uninformed Search Methods:** Achieved Maze Solving Proficiency (A*, Dijkstra, BFS) and Heuristic Analysis for 25x25 mazes
- **MDP-Based Path Planning and Optimization:** Applied Sequential Decision Making with MDPs for Optimal Path Discovery (Value Iteration, Policy Iteration) in maze environments and improved efficiency via broadcasting
- **Sequential Decision Making in Pendulum Dynamics with LQR Control:** Enhanced Pendulum Control System by Modeling Dynamics and Implementing LQR for Optimal Control, exploring Weighting Matrices
- **Information-bottleneck-method:** Implemented the Information Bottleneck algorithm efficiently utilizing broadcasting techniques to optimize the compression of data

Dysarthric Speech Classification (Major Project) Aug 2020 – Jun 2021
- Developed an automated solution for recognizing dysarthric voices with significantly improved accuracy compared to traditional methods
- Combined QCP GIF-extracted glottal features with openSMILE-derived acoustic features, leveraging machine learning techniques.
- Trained Support Vector Machines (SVM) as part of the machine learning pipeline for precise voice classification
- Demonstrated the model's effectiveness, particularly with a 94.13% accuracy rate in classifying dysarthric voices

Effect of holidays on food expenditure Jun 2020 – Jul 2020
- Researched the relationship between holidays and food spending in Ann Arbor, employing data analysis and visualization to gauge their impact
- Utilized data conversion, cleaning techniques, and Python data visualization for effective dataset preparation and to convey insights effectively

AWARDS, CERTIFICATIONS AND VOLUNTEER EXPERIENCE

Certifications:
- PL 900: Microsoft Power Platform Fundamentals, *Certifying Authority*: *Microsoft*
- Introduction to Data Science in Python, *Certifying Authority*: *University of Michigan*
- Applied Plotting, Charting & Data Representation in Python, *Certifying Authority*: *University of Michigan*
- Machine Learning, *Certifying Authority*: *Stanford University*

Awards:
- Data Structures and Algorithms - *Expert Level, Coding Practices in Elab, Srm/Elab*
- C++ Expert Level, *Coding Practices in Elab, Srm/Elab*
- Best Project Techknow-2018, *Department of Physics/SRMIST*