

VARUNTEJ KODANDAPURAM

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EDUCATION

College of Engineering, Michigan State University, East Lansing, MI <i>Master of Science, Computer Science</i>	Aug 2023 – Dec 2024 GPA: 3.81
College of Engineering, Michigan State University, East Lansing, MI <i>Honors in Bachelor of Science, Computer Science, Minor in Business</i>	Aug 2019 – May 2023 GPA: 3.82

WORK EXPERIENCE

Software Developer Python, TensorFlow, PyTorch, NLP, Web Scraping, AWS PackSense, East Lansing, MI	Mar 2025 – Present
<ul style="list-style-type: none">Engineered a full-stack AI platform using Python, Selenium, and Flask that automatically scraped over 10,000 reviews per month from 5+ e-commerce websites, reducing manual data collection time by 60%Developed a client-side filtering solution in JavaScript that improved data processing speed by 30% and increased filtering accuracy, streamlining the analysis of large text data setsEnhanced NLP processes using TF-IDF and FP-Growth, boosting packaging keyword extraction accuracy by 25% and cutting manual review efforts by 40% while expanding the packaging vocabularyAutomated Excel reporting and dashboard generation, reducing report preparation time by 50% and providing real-time performance insights that accelerated decision-makingCollaborated with 3+ cross-functional teams to optimize packaging sustainability by extracting actionable insights from large-scale e-commerce review data	
ML Engineer Python, TensorFlow, PyTorch, Statistical Modeling, Data Analysis, AWS Michigan State University, East Lansing, MI	Feb 2025 – Present
<ul style="list-style-type: none">Implemented machine learning models forecasting communicable disease incidences with a 15% improvement in accuracy by integrating Google Trends with clinical and mobility dataDesigned data pipelines that improved data quality by 30% and reduced processing time by 40%, integrating diverse datasets from the CDC, mobility, and behavioral sourcesBuilt a dual-model framework, increasing outbreak prediction accuracy by 20% through the combined use of Random Forest regression and a transformer-based Few-Shot classifierOptimized models using TensorFlow & PyTorch, raising prediction accuracy by 10% via rigorous cross-validation and hyperparameter tuning across multiple training cycles	
Graduate Teaching Assistant C++, Linux, C, ARM, LLMs, Discrete Mathematics Michigan State University, East Lansing, MI	Aug 2023 – Dec 2024
<ul style="list-style-type: none">Directed interactive C++, C, ARM programming labs for 100+ undergraduates and collaborated with faculty to design curriculum materials, boosting assignment completion rates by 30% and exam scores by 10%Facilitated weekly code review sessions, sharpening debugging skills and increasing code quality among students	
Full-Stack Developer Python, Power BI, AWS, NLP, Project Manager United Airlines, East Lansing, MI	Sep 2022 – Dec 2022
<ul style="list-style-type: none">Formulated algorithms for United Airlines Learning Management System (LMS) that evaluates quiz efficacy by comparing students average scores, enhancing course assessment accuracy by 30%Leveraged data visualization tools to enable quick identification of performance trends, thus reducing data analysis time by 40%Created a user-friendly User Interface for United Airlines LMS, enhancing accessibility and increasing user engagement by 35%Streamlined data processing scripts, cutting report generation time by 50% for the client	
Robotic Process Automation Developer UIPath, VB.net, C++, SQL, Product Manager Delta Dental of Michigan, Okemos, MI	Nov 2021 – Aug 2022
<ul style="list-style-type: none">Utilized C++ along with UIPath to build virtual bots & deployed it on virtual machine to automate sorting for 500+ roles, reducing retrieval time by 50%Automated the alignment of Delta Dental's agent lists with government records, achieving a 95% accuracy improvementLed RPA project initiatives and coordinated with cross-functional teams, improving project delivery speed by 20%	

CERTIFICATIONS

Project Management Professional Training (35 PDU Contact Hours)	TIA Education Group	Jan 2025
AWS Certified Solution Architect	Amazon Web Services	Oct 2024
Salesforce Certified AI Associate	Salesforce (Trailhead)	Oct 2024

RESEARCH PROJECTS

Graph Convolutional Network for Node Classification Python, PyTorch, LLM, ML	Jan 2024 – May 2024
<ul style="list-style-type: none">Implemented a PyTorch GCN Model that achieved 93.7% node classification accuracy, a 10% improvement over baselineRefined model performance by 10%+ via rigorous hyperparameter tuning, dropout, and weight decay	
Credit Card Approval Model Prediction Python, MATLAB, ML, GenAI	Aug 2023 – May 2024
<ul style="list-style-type: none">Designed & benchmarked various ML models, including Logistic Regression, Decision Trees, SVM, Perceptron, achieving 84.71% accuracy with SVM (linear kernel) for credit card approval prediction using the UCI datasetConducted a comparative analysis using accuracy and feature importance metrics, revealing SVM's 84.71% accuracy outperformed Logistic Regression by roughly 6% for credit risk assessment	

TECHNICAL SKILLS

Programming Languages: Python, C++, C, ARM, JavaScript, VB.NET, HTML, CSS, SQL, OpenGL, MATLAB
Data Visualization: Excel, Microsoft Power BI, Python (Matplotlib, Seaborn, Plotly)
Development & Deployment Tools: AWS, Microsoft Azure, Salesforce, Docker, Git
ML Libraries: TensorFlow, Keras, PyTorch, scikit-learn, pandas, NumPy
Project Management Tools: Agile, Waterfall, Gantt Charts, Trello, Jira, SDLC, ML feature cycle, Scrum