

NIKHILA VADLAMANI

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SUMMARY

Highly motivated Master of Science in Computer Science graduate with hands-on experience in full-stack development, cloud platforms, and data analytics. Skilled in building scalable web applications, automating data workflows, and integrating AI tools. Demonstrated success in academic, government, and research environments. Eager to contribute to innovative projects in a dynamic tech environment anywhere in the US.

TECHNICAL SKILLS

- **Programming Languages:** Python, R, C++, Java, SQL, JavaScript (ES6+), Verilog, Embedded C
- **Web Technologies:** React.js, Node.js, Flask, Konva.js, HTML5/CSS3
- **Cloud Platforms:** AWS (Lambda, S3, IAM, EBS, DynamoDB, EC2), Docker, Kubernetes
- **Databases and Big Data:** MySQL, MongoDB, Firebase, Hadoop
- **Data Science & Machine Learning:** Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, LangChain, OpenAI GPT API, NLP, LLM, D3.js, PowerBI, Tableau
- **DevOps & Tools:** Git, GitHub Actions, CI/CD, VS Code, MATLAB, Microservices Architecture, OAuth2, RBAC

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant | Kent State University, OH, USA | Aug 2023 – Dec 2023

- Mentored 100+ students in Python and C++ for the Secure Programming course, enhancing comprehension of secure coding principles and software reliability.
- Led 50+ interactive debugging sessions, resolving complex software security issues.
- Developed and implemented structured learning modules to improve student comprehension, problem-solving skills and engagement by 15%.

Project Intern | Indian Space Research Organization (ISRO), India | June 2022 – May 2023

ISRO

- Engineered structured test data patterns for satellite systems using Verilog and Embedded C, achieving precise and efficient validation of critical system functionalities.
- Optimized satellite simulations using the Xilinx Virtex 6 ML 605 development kit, leading to significant improvements in testing accuracy, performance, and reliability.
- Developed real-time data generation techniques for satellite systems, streamlining testing processes and ensuring seamless integration with mission-critical applications.
- Collaborated with a multidisciplinary team to refine testing methodologies, reducing errors by 10% and enhancing overall efficiency in satellite data processing.

Financial Management System Developer | Andhra Pradesh State Government, India | 2019 – 2023

- Boosted data processing pipeline efficiency by over 10% using optimized large-scale SQL queries, outperforming traditional NumPy and Pandas methods.
- Streamlined financial workflows by automating manual processes, improving data accuracy by 15% and minimizing operational errors in cash handling.

- Implemented automated cash tracking with SQL and custom reporting tools, providing real-time transaction visibility and enhancing fund allocation efficiency.
- Delivered data-driven insights through Power BI simulations of fund tracking systems, enhancing strategic decision-making.

EDUCATION

- **Master of Science in Computer Science | Kent State University, OH, USA | Aug 2023 – May 2025**
 - **Relevant Coursework:** Data Mining Techniques, Introduction to Cryptology, Advanced Database Systems, Information Visualization, Machine Learning & Deep Learning, Big Data Analytics
- **Bachelor of Technology in Electronics and Communication Engineering | Adikavi Nannaya University, India | June 2019 – April 2023**

SELECTED PROJECTS

FlowDigm – Cloud-Integrated Diagramming Platform | React.js, Konva.js, Node.js, GPT-based AI, AWS

- Engineered a full-stack, cloud-integrated diagramming platform featuring real-time collaboration, a custom shape library, and a **GPT-powered AI assistant** for automated diagram generation and layout suggestions. Deployed scalable **Node.js microservices on AWS (Docker, Kubernetes)** with robust CI/CD and secure authentication.

Data Visualization & Business Intelligence Dashboards | D3.js, JavaScript, HTML/CSS, Power BI, DAX, Excel

- Built robust interactive analytics tools for both **automobile data trends (D3.js, JavaScript)**, featuring coordinated interactivity and diverse chart types, and **retail sales performance (Power BI, DAX, Excel)**, optimizing data insights and supporting data-driven decision-making.

AI Meal and Move Bot | Python, Flask, Spoonacular API, GPT-2

- Developed an AI-powered chatbot for personalized meal & exercise planning, integrating custom APIs. Fine-tuned GPT-2 using Transformers for dynamic, context-aware conversations.

Satellite Test Data Pattern Generation | Verilog, Embedded C, Xilinx Virtex 6 ML 605

- Designed and implemented a system for generating test data patterns for multiple satellites using Verilog and Embedded C.

Visual Reality Showdown AI vs Reality | Python, CNN, ResNet50, Inception V3

- Used CNNs (ResNet50, Inception V3) to detect AI-generated imagery.

CERTIFICATES

- Internet of Things and Embedded Systems - Coursera
- VLSI Chip Design and Simulation with Electric VLSI EDA Tool - Coursera
- Introduction to Embedded Systems Software and Development Environments - Coursera
- Machine Learning with Python - IBM Careers