DIYA KINI

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EDUCATION

University of Michigan **Ann Arbor, MI**
B.S.E. Computer Science, Robotics *2023 - 2027*

- Societies: EV & Mobility Scholar, Amazon's Women of the World, Live Más Scholar, Adobe Student Ambassador, Dean's List
- Relevant Coursework: Data Structures & Algorithms, Artificial Intelligence, Computer Vision, Web Systems, Operating Systems

SKILLS

ML Frameworks & Tools:	LLMs, AI Agents, Retreival-Augmented Generation (RAG), Time-Series Analysis, Reinforcement Learning, AI Planning, Time-Series Analysis, Prompt Engineering, TensorFlow, PyTorch, Docker, Podman, CI/CD, OpenCV, REST APIs, Agile Dev
Programming Languages & Computer Skills:	Python, C++, SQL, R, Java, Julia, Git, MATLAB, Linux, Flask, React, ROS, AWS
Software Engineer Concepts:	Data Structures, Algorithms, Distributed Systems, Agile Development, OOP C++

EXPERIENCE

Lockheed Martin **Remote**
Software & Artificial Intelligence Intern May 2025 - Present

- Built STELLA, a production-grade LLM-powered AI agent that automates UCI message-to-entity mapping retrieval and translation using Python, GitLab API, and web scraping, reducing manual lookup by 300% and saving ~$27k per employee
- Architected AI pipelines including data ingestion, retrieval, response generation, and integration for enterprise deployment
- Implemented and evaluated three temporal deep learning models on synthetically generated trajectory data, designing experiments to compare performance, stability, and generalization and enabling model benchmarking across multiple scenarios
- Developed reproducible ML infrastructure using Docker, Podman, and CI/CD pipelines in an Agile development environment
- Built a Python WebSocket communication layer to interface with a C++ Open Mission Systems (OMS) server, supporting low-latency, real-time data exchange between AI services and next-generation avionics systems for reliable message handling
- Awarded 2nd Place in the AI Intern Challenge for delivering a production-ready AI system integrated into enterprise workflows

University of Michigan College of Engineering **Ann Arbor, MI**
Computational Linear Algebra Instructional Aide Jan 2024 - Present

- Guided 200+ students in applying linear algebra and numerical methods to robotics and perception tasks, including LiDAR point-cloud processing and sensor modeling; instructed with Python, Julia, eigendecomposition, and matrix modeling techniques
- Taught core ML concepts such as regression and classification with hands-on robotics simulations, including control examples

University of Michigan Robotics **Ann Arbor, MI**
Computer Vision Research Assistant Jan 2024 - May 2024

- Led autonomous development for 100+ vision-controlled robots across 2 courses, impacting 40+ graduate students
- Applied mathematical operations to Python, OpenCV, and computer vision algorithms to facilitate distance learning
- Enhanced the NVIDIA Jetson Nano's stereo vision implementation within the MBot ecosystem through ORB SLAM

Berry Consultants, LLC **Austin, TX**
Data Science Intern June 2022 - Aug 2022

- Assisted in the FDA approval of 2 treatments by investigating the relationship between biomarkers of the gut biome and clinical outcomes for an innovative treatment for C-difficile infections through data analysis and the R programming language
- Applied statistical modeling and exploratory data analysis to support regulatory and clinical decision making practices
- Analyzed the optimal length of time a novel gene therapy would keep hemophilia patients at a safe level of clotting

PROJECTS

Intsa485 – Full-Stack Web Application *Nov 2025*

- Built a dynamic Instagram-style web application using RESTful APIs and a React front end; implemented infinite scroll, real-time likes/comments, authentication, and session management; deployed and maintained a system on AWS EC2

Robot Interprocess Exchange – Distributed Pub/Sub Messaging *Oct 2025*

- Developed a fault-tolerant publish/subscribe framework in C++ that supports dynamic registration and low-latency topic streaming; formulated TCP transport, message framing, async spin loops to enable inter-node communication
- Validated on Linux hosts with POSIX sockets, cmake/make, systemctl, and networking and concurrency primitives

AlphaZero for Othello – Reinforcement Learning & MCTS *Mar 2025*

- Developed an AlphaZero-inspired learning agent for Othello using PyTorch and Monte Carlo Tree Search (MCTS), training joint policy and value networks through self-play; tuned exploration and rollout parameters, optimized training stability, and achieved a 37% win-rate improvement over baseline minimax agents, demonstrating strong generalization across unseen board states