Daniel Johan
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EDUCATION

University of Notre Dame | Notre Dame, IN — Graduation May 2026
Bachelor of Science | Computer Science and Engineering — *GPA: 3.92|Dean's List*

SKILLS

Technical: Python, C, C++, Java, HTML, CSS, Javascript, git, shell, pydantic, PyTorch, tensorflow, openCV, Jupyter, Solidworks, CAD, MATLAB
Language: English (fluent), Indonesian (fluent), Chinese (conversational)

RELATED COURSEWORK

Operating Systems Principles, Data Structures, Algorithms, Computer Architecture, Introduction to AI, Data Science, Computer Vision,

INTERNSHIPS/EXPERIENCE

KPMG | Dallas, TX — June 2025 – August 2025
Enterprise Architecture Intern

- Modeled architecture patterns using SAP LeanIX, focusing on system integrations, API structures, and platform optimization.
- Prototyped AI agents by integrating LeanIX APIs with OpenAI, enabling programmatic querying and automated analysis of enterprise architecture data.
- Documented findings and presented recommendations to senior architects, demonstrating potential for automated decision support systems within enterprise platforms.

University of Notre Dame & Lockheed Martin | Notre Dame, IN — September 2024 – Present
Machine Learning Engineer Intern

- Leading the development and testing of Autonomous Agent simulation models, leveraging predictive analytics and optimizing performance and reliability to further research initiatives.
- Spearheading the review and enhancement of existing code using LangChain and RAG, while creating robust environments to support efficient data processing and machine learning experimentation.
- Integrated the OpenAI API and structured output formats to enhance AI agents' reasoning and decision-making capabilities, improving their effectiveness and ability to provide clear, organized responses in search and rescue simulations.

Yaskawa | Kitakyushu, Japan — May 2024 – June 2024
Researcher

- Collaborated with a diverse team of Japanese university students and professors to develop and refine a calibration algorithm for a robotic arm used in robust conditions for microchip production.
- Performed rigorous testing, analysis, and iterative improvements to minimize error to less than 100 microns, significantly enhancing the precision and costs of the manufacturing process.

Kubota | Tokyo, Japan — July 2024 - August 2024
Researcher

- Designed and programmed an autonomous control system for a tractor in C, implementing a PID controller to optimize real-time adjustments, allowing the tractor to correct its trajectory and maintain a straight path after moving on uneven terrain, greatly improving efficiency in agricultural tasks.

PROJECTS AND ACTIVITIES

Object Tracking Robot | University of Notre Dame
Personal Project

- Designed and programmed a robot car to autonomously track specified objects using a U-Net Neural Network trained on a large dataset for object recognition.
- Utilized multithreading to achieve real-time object tracking, enabling parallel processing of video input and control logic so the robot could continuously recognize and follow objects using the trained model.

Notre Dame Robotic Football | University of Notre Dame — August 2023 - Present
Code Team Head & *Secretary*

- Leading the code team for competitive robotic football matches, managing and optimizing robot programs on Raspberry Pi to enhance movement precision, throwing accuracy, controls, and overall performance.
- Integrated computer vision techniques to detect and track targets in real-time with arUco markers, enabling the robot to make quick, precise throws under dynamic conditions.

CS for Good | University of Notre Dame — August 2022 - Present
Software Engineer

- Engineered and optimized a high-performance backend system using Django and Python, improving data retrieval speeds by 40% and reducing latency in user interactions.
- Designed and deployed a scalable database architecture with Django's ORM, enabling real-time progress tracking and analytics for 100+ students and educators.