Fayol Ateufack

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EDUCATION

Valparaiso University, Valparaiso, IN **Graduation:** May 2026 | **GPA:** 3.6 / 4.0

Degrees: Bachelor of Science in Computer Engineering, Bachelor of Science in Physics

Awards: BlackRock Founder's Scholarship (2025)**,** Generation Google Scholarship (2024)**,** ComEd Future of Energy Scholarship (2023), Valparaiso University Presidential Scholarship (2022)

PUBLICATIONS / RESEARCH| Google Scholar Profile

First Author — "A Hybrid RNN-CNN Approach to Automate Traffic Pattern Analysis in Roundabouts" | PDF | Demo

- Developed an end-to-end aerial traffic analysis system combining object detection, LSTM-based trajectory prediction, and CNN re-identification, achieving 98.7% tracking accuracy and overcoming occlusion, nonlinear motion, and detection gaps (**IEEE Electro-Information Technology Conf., EiT 2025**).

First Author — "A Genetic Algorithm for K-Distinct Lattice Paths" | PDF

- Designed a multi-ecosystem genetic algorithm to identify maximal sets of k-distinct lattice paths, introducing adaptive fitness scaling and divergence-based selection to avoid premature convergence and outperform brute-force and greedy baselines, reducing time complexity from $O(n^k)$ to $O(nk)$.

Autonomous Campus Tour Robot| Demo

- Built an autonomous conversational robot that conducts interactive campus tours, integrating AI dialogue, LiDAR-based SLAM, and ROS 2 navigation, with optional web teleoperation for supervision and human takeover.

INDUSTRY WORK EXPERIENCE

BlackRock, San Francisco, CA | *Software Engineering Intern* Jun 2025 – Aug 2025

- Built AI agent system that automates portfolio rebalancing workflows for portfolio managers through natural language queries, reducing manual data gathering and multi-system navigation.
- Engineered production microservices using Django REST and PostgreSQL for data management, with gRPC agent layer leveraging LangGraph and LLMs for multi-step task orchestration and observability.

Micron Technology, Boise, ID | *Software Engineering Intern* May 2024 – Aug 2024

- Trained vision models on 3000+ curated silicon wafer images using Google Cloud GPUs, achieving 98% mAP in defect detection.
- Automated inference pipeline from manufacturing machines to cloud-based models and deployed an analytics dashboard to visualize defect trends, saving 2,000+ labor hours annually.

Comed, Chicago, IL | *Software Engineering Intern* Jun 2023 – Aug 2023

- Automated compliance data reconciliation with Python and Oracle SQL, resolving millions of record mismatches and ensuring regulatory accuracy.
- Developed Power BI dashboard to track employee training progress, saving the company approximately $75K annually.

LEADERSHIP & COMMUNITY IMPACT

National Society of Black Engineers, Valparaiso, IN | *President* 2023 – 2025

- Drove 70% internship placement rate for freshman cohort (2.3x national average) through systematic mentoring and strategic industry partnerships.
- Managed $20k budget to host professional workshops & networking events for engineering students.

SKILLS

Programming Languages: Python, JavaScript, C, C++, Java, SQL
Frameworks: PyTorch, Django, React, React Native, ROS2, Embedded C, VHDL
Cloud/DevOps: AWS, GCP, Docker, Git, Linux
Languages: English (Fluent), French (Fluent)

RELEVANT CERTIFICATIONS & INDEPENDENT STUDY

CS50AI – Introduction to Artificial Intelligence — Harvard X *(Certificate, 2023)*
CS50W – Web Programming with Python & JavaScript — Harvard X *(Certificate, 2023)*
CS231n – Deep Learning for Computer Vision — Stanford University *(completed full assignments)*
Reinforcement Learning Lectures — David Silver (DeepMind) *(completed all exercises)*
Dale Carnegie Professional Development (Fall 2024)