Fayol Ateufack

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EDUCATION

Valparaiso University, Valparaiso, IN _Expected May 2026_
Bachelor of Science in Computer Engineering GPA: 3.62 / 4.00
Bachelor of Science in Physics
Awards: BlackRock Founder's Scholarship**,** Generation Google Scholarship, ComEd Future of Energy Scholarship
Certifications: Dale Carnegie Professional Development, Harvard's Introduction to Artificial Intelligence with Python, Harvard's Web Programming with Python and JavaScript.
Google Scholar Profile. Other: Completed all assignments of CS231n, David Silver's HWs on RL, Meta's mobile app dev course

SKILLS

Programming Languages: Python, JavaScript, C, C++, Java, SQL
Tools/Frameworks: PyTorch, Tensorflow, Django, React.js, React Native, Git, Linux, GCP, AWS, Docker
Spoken Languages: English, French

PROJECTS / PUBLICATIONS

End-to-End traffic analysis with Computer Vision Oct 2023 – May 2024
- Deep Learning to automate car detection and tracking for traffic analysis by training an RNN for trajectory prediction and a CNN for reidentification, achieving 97% accuracy and minimizing ID switches.
- Published by IEEE. Paper pdf: Car tracking paper   Demo: Sample car tracking video output

Network and Graph Theory Sep 2022 – March 2024
- Implemented a genetic algorithm for finding k-distinct paths in 2D lattices (an NP-Complete problem).
- Improved time complexity from $O(n^k)$ to $O(n \times k)$, thereby reducing computation time by years.
- Paper pdf: Genetic Algorithm Paper

Computer Vision-Based Parking Utilization Study Oct 2023– Dec 2023
- Automated the report of parking lots occupancy using flying drones and a fine-tuned car detection YOLO model.
- Employed the OpenCV Oriented FAST and Rotated BRIEF algorithm for frame alignment.
- Published by IEEE. Paper pdf: Parking paper

Death Note Feb 2025
- Created Death Note, a cross-platform app for note-taking with text, image, and audio support. Integrated an AI companion powered by LLMs on my Django server, providing contextual summaries like a biographer.
- Demo: Death Note Demo

HackHarvard: Autodine Oct 2024
- Built an automated food ordering system featuring real-time voice transcription, processing, and text-to-speech responses.
- Developed a Django backend integrated with LLM tool-calling and a live dashboard using Server-Sent Events (SSE) to enable seamless order updates, real-time order state visibility, and enhanced user interaction and experience.
- Demo: AutoDine Demo

WORK EXPERIENCE

BlackRock, San Francisco, CA June 2025– Present
Aladdin SWE Intern
- Implemented AI agent workflow for Portfolio Management to facilitate user experience for Aladdin Clients.
- Integrated core LLM functionalities to BlackRock's internal Copilot system.

Micron Technology, Boise, ID May 2024– August 2024
Probe Data Software Intern
- Collected, curated, annotated, and augmented data for edge die and touchdowns detection on silicon wafer. Trained model on Google Cloud Platform GPUs and YOLOv8 architecture, achieving a 98% mAP score.
- Automated inference pipeline from the manufacturing machines taking photos to the trained model running on Google Cloud.
- Built the backend of a web platform using Django and MySQL to visualize touchdowns history on wafer pads, hence facilitating process improvements and saving the company 2000+ hours/yr.

Exelon - ComEd, Chicago, IL June 2023– August 2023
Data Analyst Intern
- Investigated reports mismatch on thousands of employees' records using python scripts. Designed database views on Oracle SQL to efficiently extract essential data ensuring regularotary compliance.
- Built Microsoft PowerBI dashboard tracking LMS employees' training progress on LMS, saving ComEd ~$75k/yr.

LEADERSHIP & COMMUNITY ENGAGEMENT

National Society of Black Engineers, Valparaiso, IN 2023 - Present
President
- Managed a budget of about $10,000 to improve professional awareness among underrepresented communities in engineering.
- Planned and organized professional workshops and events, resulting in 70% of our _freshmen_ getting internships.