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: Generation Google Scholarship (June 2024), ComEd Future of Energy Scholarship (May 2023)
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 (Stanford's graduate-level computer vision class Link)

SKILLS

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

WORK EXPERIENCE

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 TPUs 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 $50-100k/yr.

Valparaiso University Department of Physics, Valparaiso, IN — Jan 2023 – Present
Teaching Assistant
- Conducted help sessions for undergraduate physics courses, spanning Newtonian Mechanics to Electromagnetism, boosting comprehension and problem-solving abilities for approximately 20 students annually.
- Assisted with labs, ensuring a safe working environment while providing hands-on guidance to students as they conducted experiments.

PROJECTS / PUBLICATIONS

End-to-End traffic analysis with Computer Vision — Oct 2023 – May 2024
- Applied Deep Learning to automate car detection and tracking for traffic analysis, training an RNN for trajectory prediction and a CNN for reidentification, achieving 97% accuracy and outperforming Kalman Filters while minimizing ID switches.
- Demo: Sample car tracking video output Paper pdf (under review): Car tracking 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

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(p x m x n x k), thereby reducing computation time by years.
- Paper pdf: Genetic Algorithm 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. App currently only available for Android: Death Note Android APK Download

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 function calls 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

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.