**Fayol Ateufack**
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## EDUCATION

**Valparaiso University,** Valparaiso, IN — Expected May 2026
Bachelor of Science in Computer Engineering and Physics — GPA: 3.62 / 4.00
**Relevant Coursework:** Reinforcement Learning, Data Structures & Algorithms, Software Design & Development, Operating Systems, Artificial Intelligence, Linear Algebra, The Calculus Sequence (I, II, III), Discrete Math, Differential Equations

## SKILLS

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

## WORK EXPERIENCE

**Micron Technology,** Boise, ID — May 2024– Present
*Probe Data Software Intern*
- Developed a deep learning model for failure detections on silicon wafers for high volume chip manufacturing and R&D
- Built a web platform to visualize touchdowns history on wafer pads, hence facilitating process improvements
- Saved the company 2000+ hours per year

**COMED,** Chicago, IL — June 2023– August 2023
*Data Analyst Intern*
- Designed and developed a dynamic employee training activity dashboard, saving ComEd $50-100k+ annually
- Efficiently extracted essential training data from company databases to ensure regulatory compliance

**Valparaiso University Department of Physics,** Valparaiso, IN — Sep 2023 – Dec 2023
*Software Developer*
- Managed the development of an online Physics Learning Management System
- Implemented impressive features such as a semantic search engine to automate learning for students

## PROJECTS / PUBLICATIONS / RECOGNITIONS

**Generation GOOGLE Scholarship** — June 2024

**Comed Future of Energy Scholarship** — May 2023

**Computer Vision-Based Parking Utilization Study** — Oct 2023– Dec 2023
- Automated the report of parking lots occupancy using flying drones and computer vision
- Used a fine-tuned Yolov8 model for car detection
- Employed the OpenCV Oriented FAST and Rotated BRIEF algorithm for frame alignment
- Published by IEEE: Smith, C., Ateufack Zeudom, F., Grossman, J., & Khorbotly, S. (2024). A Computer Vision-Based System to Study Parking Utilization. In Proc. of the 2024 IEEE Intl. Conf. on Electro Information Technology (eIT)

**End-to-End traffic analysis with Computer Vision** — Oct 2023 – May 2024
- Leveraged Deep Learning models to automate car detection and tracking for traffic analysis
- Trained a RNN to predict car trajectories and a CNN for car reidentification to reduce ID switches
- Achieved more 95% accuracy, surpassing Kalman Filters in accuracy and compute time

**Network and Graph Theory** — Sep 2022 – March 2024
- Implemented an efficient 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

## CERTIFICATIONS

- Harvard's Introduction to Artificial Intelligence with Python — July 2023
- Harvard's Web Programming with Python and JavaScript — Aug 2023
- Dale Carnegie Professional Development Course — Fall 2024

## 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