Sylvester Elorm Kpei

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EDUCATION

Cornell University — **Ithaca, NY**
Bachelor of Arts in Computer Science — *Expected May 2028*

EXPERIENCE

African Languages Lab — **Madison, WI**
Software & Data Engineering Intern — *May 2025 – Present*

- Built end-to-end NLP data pipeline processing 10,000+ Malagasy sentences through web scraping, regex cleaning, and pattern analysis, creating structured datasets for language research supporting 18M+ native speakers
- Engineered automated text extraction and preprocessing workflows using Python, BeautifulSoup, and regex, reducing manual data collection time by 80% and enabling scalable linguistic analysis for endangered African language preservation projects

NVIDIA — **Santa Clara, CA**
Software Engineering Fellow — *June 2025 – Present*

- Completed the NVIDIA Summer Bridge Program, a 3-part technical series led by 10+ senior engineers, with in-depth sessions on CUDA, GPU architecture, and scalable AI infrastructure
- Explored real-world engineering challenges powering NVIDIA's breakthroughs in deep learning, robotics, and graphics, gaining first hand insight into product development at global scale

Jane Street — **New York City, NY**
Software Engineering Fellow — *May 2025*

- Selected as 1 of 51 students nationwide (from 1,000+ applicants) for Jane Street's FOCUS Program, centered on software engineering, functional programming, and large-scale systems
- Completed 10+ hours of technical workshops and collaborative challenges, including hands-on experience with OCaml to simulate real-time trading infrastructure

GhCode Foundation — **Kumasi, Ghana**
Founder — *October 2023 – Present*

- Founded a tech-education foundation that empowered 500+ students by developing a full-stack learning management system with React, Node.js, and Firebase, reducing onboarding time by 50%
- Created automated grading scripts in Python, increasing grading accuracy by 30% and scalability by 40%

PROJECTS

RoadBuddy

- Created intercity carpooling platform where drivers post future trips with flexible pricing and passengers negotiate costs for 100+ mile journeys, built with Swift/SwiftUI frontend and Python Flask backend supporting 40+ REST endpoints with 95% uptime
- Implemented Stripe payment processing, 5-star rating system, real-time GPS tracking, and in-app messaging across 8 mobile screens, reducing intercity travel costs by 60% through efficient ride-sharing and automated booking workflows

SilverStore

- Built secure e-commerce platform handling 30+ orders with integrated payment processing, featuring automated inventory management and comprehensive admin dashboard reducing manual oversight by 80%
- Engineered AI recommendation system achieving 94% accuracy using collaborative filtering and behavioral analytics, increasing user engagement by 76% click-through rate through real-time preference learning algorithms

Ithaca Weather Intelligence Dashboard

- Built interactive weather analytics platform with Python, Dash, and Plotly, processing real-time data from 4 locations with automated collection and cloud deployment
- Developed predictive algorithms improving weather preparedness accuracy by 40% and solving unpredictability challenges for 30,000+ Ithaca residents

TECHNICAL SKILLS

Languages: Python, Java, R, C++, JavaScript(ES6), OCaml, Swift
Tools & Frameworks: Git, React.js, Node.js, EC2, S3, Express.js, RESTful APIs