

# Sylvester Elorm Kpei

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## EDUCATION

### Cornell University

*Bachelor of Arts in Computer Science*

**Ithaca, NY**

*Expected May 2028*

**Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Operating Systems Programming, Software Engineering, Database Systems, Machine Learning, Computer Architecture, Calculus I,II, & III, Functional Programming

## TECHNICAL SKILLS

**Languages:** Python, Java, Go, C++, JavaScript, OCaml, MongoDB, Swift, SQL(PostgreSQL), HTML/CSS, Ruby, Perl, GraphQL

**Tools & Frameworks:** GitHub, React, Node.js, FastAPI, AWS(EC2), Express.js, RESTful APIs, Docker, PyTorch, Bootstrap, Open Source, Linux, Pandas, NumPy, Material-UI, VS Code, Matplotlib

## EXPERIENCE

### African Languages Lab

*Software & Data Engineering Intern*

**Madison, WI**

*May 2025 – August 2025*

- Built AI translation models for 12+ African languages to English using TensorFlow, and Pandas, processing 10,000+ Malagasy sentences through automated NLP pipelines and supporting language research for 18M+ native speakers
- Developed web scraping workflows using Python and BeautifulSoup, reducing manual data collection by 80% and accelerating AI training for endangered African language preservation

### NVIDIA

*Software Engineering Fellow*

**Santa Clara, CA**

*June 2025 – August 2025*

- Gained hands-on experience with GPU computing by implementing CUDA optimizations and performance analysis across 3+ robotics and deep learning pipelines during NVIDIA's Summer Bridge Program with 10+ senior engineers
- Analyzed engineering challenges in deep learning, robotics, and graphics projects, proposing solutions and understanding product development cycles at a global scale with a cohort of 50+ students

### Amazon

*Cohort Member*

**Seattle, WA**

*June 2025 – August 2025*

- Completed Amazon's 10-week Campus Prep Series, developing skills in networking, resume optimization, and interview preparation through 10+ specialized sessions focused on technical career advancement
- Enhanced technical interview and cloud computing skills through Amazon's SDE Interview Prep and AWS sessions, improving problem-solving capabilities and gaining hands-on experience with EC2, S3 and Lambda

### Jane Street

*Software Engineering Fellow*

**New York City, NY**

*May 2025 - 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
- Boosted functional programming skills in OCaml through 10+ hours of technical workshops, collaboratively building a trading simulation that processed 900+ concurrent operations using threads, processes, and virtual memory management optimization

## PROJECTS

### RoadBuddy — Swift, Flask, PostgreSQL, Material-UI, REST APIs

*June 2025 - Present*

- Created intercity carpooling platform where drivers post future trips with flexible pricing for 100+ mile journeys, built with Swift/SwiftUI, Material UI, and Python Flask supporting 40+ REST endpoints with 95% uptime
- Implemented Stripe payments, 5-star ratings, real-time GPS tracking, and in-app messaging across 8 mobile screens, reducing intercity travel costs by 60% through efficient ride-sharing

### SilverStore — React, Node.js, Python, PyTorch, PostgreSQL, Numpy, HTML/CSS

*June 2025 - Present*

- Built secure e-commerce platform handling 30+ orders with integrated payment processing and automated inventory management, reducing manual oversight by 80%
- Developed AI recommendation system achieving 94% accuracy using collaborative filtering, increasing user engagement by 76% through real-time preference learning

### Ithaca Weather Intelligence Dashboard — Dash, Plotly, Matplotlib, AWS(EC2), JavaScript

*May 2025 - Present*

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

## LEADERSHIP ROLES

**NSBE**(Peer Mentor) - Guided incoming students on navigating coursework and internship prep

**URMC**(Freshman Rep) - Represented freshman cohort, organized events to support underrepresented peers in CS