# Sylvester Elorm Kpei

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## Education

**Cornell University** **Ithaca, NY**

*Bachelor of Science in Computer Science* *Expected May 2028*

**Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Calculus I–III, Functional Programming

## Technical Skills

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

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

## Experience

**NeuralSeek** | AI Engineering Intern | Miami, FL *August – September 2025*

- Built production agentic AI agents using NeuralSeek's multi-LLM orchestration platform and advanced knowledge base configuration, successfully implementing 5+ enterprise AI agents for deployment
- Configured knowledge bases and optimized data sources through no-code implementation and pattern recognition algorithms, achieving 90%+ accuracy in AI response generation for teams

**African Languages Lab** | Software & Data Engineering Intern | Madison, WI *May – August 2025*

- Built AI translation models using TensorFlow and Pandas that outperformed Google Translate (61 vs 55 BLEU score), processing 300+ endangered dialects and creating PyArrow audio extraction tools for 18M speakers worldwide
- Developed automated data collection systems using Python and BeautifulSoup, reducing manual work by 80% and accelerating training of translation models that serve underrepresented communities globally

## Professional Development

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

- Built high-performance trading simulation using OCaml and multithreading concepts in the Jane Street FOCUS program, successfully processing 900+ concurrent operations with optimal performance
- Collaborated with 51 elite students selected from 6,000+ national applicants in functional programming workshops, gaining advanced experience in quantitative finance and algorithmic trading

**NVIDIA** | Software Engineering Fellow | Remote *June – August 2025*

- Implemented CUDA optimization techniques across 3+ robotics and deep learning pipelines in the NVIDIA Summer Bridge Program, using GPU architecture principles to reduce memory usage by 30%
- Collaborated with 10 senior engineers and worked alongside a cohort of 50 students to enhance computational workflows and gain hands-on experience with high-performance computing

**Google** | Software Engineering Track Lead | Remote *July – August 2025*

- Promoted to Software Engineering Track Lead in the Mentor Me Collective x Grow with Google program, mentoring 25+ software engineering scholars through weekly mentorship sessions and technical career development workshops
- Facilitated peer collaboration initiatives and provided industry insights with 90%+ engagement rates while completing advanced leadership training curriculum

**Microsoft** | Emerging Leader | Remote *July – September 2025*

- Enhanced technical project leadership and agile methodologies through Microsoft Security's program, developing stakeholder communication and decision-making frameworks across 7 weekly modules with 100+ participants

## Projects

**RoadBuddy** | youtu.be/1-CiGIoMZG8 — *SwiftUI, Flask, Material-UI, REST APIs*

- Built intercity carpooling platform using Swift/SwiftUI and Python Flask with 40+ REST endpoints at 95% uptime after identifying transportation gaps among Cornell students seeking shared rides to airports and destinations
- Integrated Stripe payments, real-time GPS tracking, 5-star ratings, and messaging features across 8 mobile screens, reducing travel costs by 60% and streamlining campus mobility solutions

**SilverStore** | kpeis695.github.io/SilverStore — *React, Node.js, PyTorch, PostgreSQL, Numpy, HTML/CSS*

- Developed secure e-commerce platform with integrated payment processing and automated inventory management, successfully handling 30+ orders with streamlined operations
- Built AI recommendation system using collaborative filtering that achieved 94% accuracy, reducing manual oversight by 80% and increasing user engagement by 76%

**Weather Dashboard** | ithaca-weather-dashboard.onrender.com — *Dash, Plotly, Matplotlib, AWS(EC2), JavaScript*

- Built interactive weather analytics platform using Python, Dash, and Plotly with multithreaded data processing from 4 locations in Ithaca and AWS cloud deployment for scalable performance
- Applied statistical analysis to predict rainfall patterns, improving weather preparedness accuracy by 40% and helping 30,000+ Ithaca residents make better daily planning decisions