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, 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, Swift, SQL(PostgreSQL), HTML/CSS, 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 (CerebralBlue Inc.) | AI Engineering Intern | Miami, FL   *August – September 2025*

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

LEADERSHIP ROLES

NSBE(Peer Mentor) - Guided 47 incoming students on navigating coursework and internship prep
URMC(Freshman Rep) - Represented 20+ freshman cohort, organized events to support underrepresented peers in CS