# Stephen Yupa

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## **EDUCATION**

Georgetown University, Washington, DC

Expected May 2027

B.A. in Economics and Computer Science | GPA: 3.877/4.0

**Relevant Coursework**: Data Structures & Algorithms, Discrete Mathematics, Object Oriented Programming, Econometrics, Mathematical Statistics, Database Systems

## **TECHNICAL SKILLS**

**Programming Languages**: Python, C++, SQL, R, TypeScript, JavaScript, Java, HTML, CSS **Frameworks/Libraries**: React, Node.js, Express, Flask, PyTorch, scikit-learn, Tailwind CSS **Tools & Databases**: Jira, Prometheus, Postman, Figma, Git, Linux, PostgreSQL, MongoDB, Redis **Cloud & DevOps**: AWS, Azure, Docker, Kubernetes, Ansible, Terraform, Github Actions, CI/CD

# RELEVANT EXPERIENCE

Data & Strategy Intern, Georgetown Scholars Program — Washington, DC.

June 2025 – August 2025

- Streamlined student resource allocation by automating a Google Forms → Excel data pipeline, reducing manual reporting time by 40% across 150+ student records
- Developed and presented "GSP 101," a digital onboarding program adopted by first-year staff, increasing student preparedness and event attendance by 25%
- Designed and deployed 10+ A/B-tested digital campaigns, leveraging analytics from Instagram Insights to boost engagement by 35% and CTR by 22%

**Data Operations Assistant,** Office of Undergraduate Admissions — Washington, DC

May 2024 – August 2025

- Processed and validated 5,000+ applicant records with 99.9% accuracy, improving database integrity for admissions analytics.
- Built Excel-based reporting templates to monitor visitor trends and staff allocation across 100+ events, supporting data-driven scheduling
- Handled 50+ daily inquiries and optimized communications workflow, maintaining a 98% satisfaction rate among prospective students

**Technical Consultant,** Georgetown Ventures — Washington, DC

September 2024 – May 2025

- Collaborated with founders at **The Petition Company** to prototype a **Python-based handwriting recognition model** trained on petition signature datasets, benchmarking accuracy against **Google Vision OCR** to improve signature validation
- Revamped and deployed <u>DarkSaber Labs' website</u> using HTML, CSS, and JavaScript; improved mobile responsiveness
  and reduced average load time by 35%
- Supported pitch development for startup clients, creating data visualizations and performance metrics that helped secure initial investor funding

#### **PROJECTS**

Financial Forecasting & Scenario Analysis | Python, Excel, Tableau

Fall 2025

- Developed an end-to-end **financial forecasting platform** for S&P 500 risk analysis, automating data ingestion, preprocessing, and **time-series modeling (Prophet, ARIMA)**
- Designed interactive Tableau dashboards to visualize scenario outcomes (best, expected, worst, stress) and forecast intervals
- Built automated alerting for risk metrics (Volatility, VaR, CVaR, Max Drawdown) to flag portfolio drawdowns >25%

# **Damages Analysis & Econometrics Modeling of Wage Inequality** | Stata

Summer 2025

- Built reproducible Stata pipeline for CPS microdata (data wrangling → OLS estimation → reporting), version-controlled on GitHub
- Modeled effects of education, gender, and age on log wages using heteroskedasticity-robust regressions, validating with fit diagnostics and coefficient stability tests
- Delivered clear statistical summaries enabling interpretation of wage disparities and policy implications

#### B+-Tree Indexing System |C++

Spring 2025

- Engineered a high-performance, **pointerless B+-Tree** simulating disk-based storage with custom 2D memory arrays
- Optimized insert/search/delete operations using polynomial hashing, achieving 2× faster retrieval in benchmark tests
- Built a CLI for traversal, benchmarking, and index validation, demonstrating algorithmic optimization and systems-level design