

# Alou Kone

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## EDUCATION

CUNY Brooklyn College – New York, NY

Expected May – 2027

**B.S. in Computer Science and B.S. in Computational Mathematics; Double Minor in Data Science and Statistics**

**GPA:** 3.9 – Dean's List

**Relevant coursework:** Data Structures and Algorithms, Discrete Mathematics, Calculus 1-3, Database Systems, Linear Algebra, Intro to Data Science, Machine Learning, Artificial intelligence, Probability and Statistics, Numerical Analysis, Differential equations

## SKILLS & CERTIFICATIONS

**Programming:** Python, Java, SQL, R, JavaScript, HTML/CSS

**libraries:** Pandas, Numpy, Matplotlib, Seaborn, SciKit-learn, Scipy, Tidyverse, Flask

**Tools & Frameworks:** Git, GitHub, Jupyter Notebooks, Linux/Unix Shell, CI/CD Pipelines, REST APIs

**Certifications:** Cornell University Machine Learning Foundations, CITI Program Responsible Conduct of Research (RCR)

## EXPERIENCE

**Microsoft Research Lab - Data Science Research Student (Ds3)** | New York, NY

May 2025 - June 2025

- Selected as 1 of 12 students for Microsoft's competitive DS3 program to gain intensive training in data science and machine learning fundamentals.
- Replicated a published research paper in a team-based project under the guidance of Microsoft researchers, applying statistical techniques, regression models, and EDA using R.
- Built a reproducible data analysis pipeline with tidyverse and ggplot2, contributed to academic-style reporting.

**KPMG - AI Studio Fellow** | Remote

August 2025 - Present

- Partnering with KPMG's aiQ and Trusted AI teams through Break Through Tech AI to develop ML models optimizing AI productivity, sustainability, and energy use.
- Applying optimization, reinforcement learning, regression, and time-series forecasting on BLS and EIA datasets to target a **15% reduction** in AI energy footprint.
- Evaluating models with  $R^2$  and RMSE, and delivering recommendations to KPMG stakeholders.

**SEO Tech Developer Program - Software Engineering Intern** | Remote

June 2025 - August 2025

- Completed a competitive full-stack residency covering software testing, backend APIs, databases, and frontend frameworks.
- Built end-to-end apps, from command-line interface tools to production web apps, using Python/Flask and Bootstrap.
- Collaborated in agile sprints with code reviews and GitHub workflows (PRs, issues, CI).

**CUNY Tech Prep - Data Science Fellow** | New York, NY

August 2025 - Present

- Building machine learning pipelines for exploratory data analysis, regression, classification, NLP, and neural networks.
- Developing a collaborative capstone project hosted on GitHub, applying feature engineering, model tuning, and Streamlit deployment to deliver a production-ready data application.

**Cornell Break Through Tech - ML/AI Fellow** | Remote

April 2025 - Present

- Selected as **one of 1,000 students** nationwide for a competitive applied ML fellowship focused on Python, data science, and machine learning (e.g., supervised learning, NLP).
- Building machine learning pipelines with Python, pandas, and scikit-learn, focusing on data preprocessing, feature engineering, and model development using supervised learning and NLP techniques

**Uber Career Prep - Software Engineer Fellow** | Remote

December 2024 - Present

- Selected as **one of 50** students nationwide from a competitive pool with a 3% acceptance rate.
- Completed intensive training in data structures and algorithms, collaborated on coding challenges, and mock interviews while attending mentorship sessions led by Uber engineers, gaining insights into industry best practices and career development.

**SIPPA Solutions - Data Engineer Intern** | Flushing, NY

July 2024 - August 2024

- Engineered a robust Java ELT package for an Android app, optimizing data processing by 14%, enabling efficient CSV parsing, JSON conversion, and API integration using Volley library.
- Implemented data validation and error handling mechanisms in the ELT package, reducing data inconsistencies by 11% and improving overall data quality for downstream analytics.

## PROJECTS

**S&P 500 Financial Analysis, Data Analyst** | *Pandas, Seaborn, Scikit-learn, and SciPy* | Team of 1

[Github](#)

- Performed regression, clustering, and statistical analysis on S&P 500 data to uncover patterns in earnings, valuation, and volatility.

**Weather-Based Outfit Planner** | *Flask, Python, OpenAI API, SerpAPI, SQLite* | Team of 4

[Github](#)

- Developed backend utilities for AI-driven clothing recommendations based on weather and search results; improved API response accuracy by 45%.

**Fetsy E-Commerce Database, SQL Developer** | *MYSQL* | Team of 1

[Github](#)

- Normalized a 400K-record ecommerce dataset to 3NF; designed schema, stored procedures, and optimized query performance with indexes.