ELIFIA MUTHIA

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EDUCATION

School of Engineering & Applied Science, Columbia University | New York, NY　　　**Sept 2023 - May 2025**
MS in Computer Science

Barnard College, Columbia University | New York, NY　　　**Sept 2020 - May 2024**
BA in Computer Science (Track: Intelligent Systems)　　　*GPA: 4.00*
- **Selected Coursework:** Advanced Programming in C, Data Structures & Algorithms, Design using C++, CS Theory, Artificial Intelligence, Computational Aspects of Robotics, Linear Algebra
- **Dean's List**: All Semesters

TECHNICAL SKILLS & LANGUAGES

Technical: Python (Numpy, Pandas, PyTorch, Jupyter, Flask), R, SQL, MySQL, PostgreSQL, AWS S3, Redshift, Sagemaker, C/C++, Java, HTML/CSS/JavaScript, REST APIs, JSON, MATLAB, Node.js, React, Linux, Atlassian
Languages: Indonesian (Native)

TECHNICAL EXPERIENCE

Emerest Connect | *Data Analyst* | New York, NY　　　**October 2022 - Present**
- Reduce 15 hours of weekly manual labor by automating 10 routine reports using **Python** for the nursing and social work department, streamlining the delivery process to insurance companies.
- Develop a strategy to reduce hospital admissions by 15% through impactful data visualization, correlation, and statistical analyses in Python.
- Optimize data handling and storage by implementing an incremental **ETL** pipeline that loads data from **AWS S3** buckets into **Redshift** using **AWS Lambda** functions.
- Collaborate with software development, nursing, and social work teams to establish an efficient data infrastructure, ensuring smooth data flow across the organization.

Barnard Programming Languages Lab | *Research Assistant* | New York, NY　　　**January 2022 – Present**
- Awarded $6000 by the Summer Research Institute to lead a team of 5 researchers alongside Columbia's Neurological Institute to develop a website that measures tremor severity in movement disorders.
- Drive a 60% acceleration in team progress, achieving in 10 weeks what previously took 8 months.
- Implement a **Node.js** web server, refactor legacy **MATLAB** clinical software, and develop a user-friendly front-end web interface for Dr. Seth Pullman's practice.
- Resolve data verification issues and perform fuzz tests to ensure accurate results across various machines and software versions after software migration.

Private Tutor | *Mathematics and Computer Science* | Remote　　　**December 2019 – August 2023**
- Tutored students at grades 3-12 for 2-4 hours a week on mathematics and computer science.
- Enabled 3 students achieve perfect scores in AP and IB Computer Science.

PROJECTS

Goodreads Unwrapped | *github.com/elifia-muthia/goodreads-unwrapped*　　　**2023**
- Developed a website using **React** and **Flask** to analyze user reading habits on Goodreads.
- Used **Selenium** and **BeautifulSoup** to scrape books data on Goodreads shelves.

Client Management | *github.com/elifia-muthia/ClientManagement*　　　**2019**
- Developed an app using **Java** and **MySQL** database for client to integrate to her practice.