Midyan Elghazali

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EDUCATION

City University of New York Hunter College | New York, NY

B.S. in Computer Science/ Minor in Mathematics GPA: 3.7/4.0

May 2025

Relevant Courses: Data Structures and Algorithms, Computational Vision, Database, VR/MR/AR, Operating System.

TECHNICAL SKILLS

 $\textbf{Programming Languages: Java} \ (\texttt{Advanced}), \ \texttt{Python} \ (\texttt{Advanced}), \ \texttt{C} \ (\texttt{Intermediate}), \ \texttt{C\#} \ (\texttt{Intermediate}), \ \texttt{C++} \ (\texttt{Advanced}).$

Tools: PyTorch, TensorFlow, OpenCV, NumPy, Pandas, Matplotlib, SQL, NoSQL, Git, AWS, Docker, RabbitMQ.

Certifications: CompTIA A+, ITF+; MTA Security, Network, Windows OS Fundamentals; IC3 Digital Literacy (Certiport).

PROFESSIONAL EXPERIENCE

Kodely Programming Instructor | Kodely | New York

Summer 2024 – Present

Conducted 12+ programming workshops for 50+ students, improving their coding skills by 30% through hands-on projects and personalized feedback.

Software Engineer Intern | CUNY Hunter College | New York

Summer 2024 - Present

- Researched and communicated AI depth estimation techniques using stereo methods, leading to a 15% accuracy improvement.
- Presented findings and technical challenges to research teams, enhancing overall project understanding.

Software Engineer Intern | IT Universum | New York, Jericho

Summer 2021

- Collaborated in a team to troubleshoot and resolve technical issues, ensuring 99% system uptime.
- Reduced downtime by 80% through proactive support and maintenance.

Software Engineer Intern | Mood Labs | Remote

Summer 2021

• Led team to develop and implement **5** stickers using Python and JavaScript for Mood Labs Discord bot, resulting in a **12**% increase in user engagement.

PROJECTS

Clanotea | Full-Stack | GitHub | Link

Sep 2023 - Present

- Sketched the user interface in **Figma** and developed CLANOTEA, a user-friendly note-sharing platform for students, using **NodeJS**, **Express.js**, **JavaScript**, **and HTML/CSS** to manage the backend.
- Integrated **Dropbox API** for media storage and implemented secure login sessions with **MongoDB**, **token-based authentication**, and **HTTP requests**, supporting **175+ active users**. Added an admin login to verify uploaded content as legitimate notes. Currently developing an AI helper for quick, AI-assisted note reviews.

Currency Detector | Team Project | Backend | GitHub

Feb 2024 – Apr 2024

- Led a team of 4 to implement a currency detector in **Python** using **TensorFlow** and **OpenCV**, processing images and webcam input with a **CNN model** to identify currency.
- Achieved **98**% accuracy on a test set of over **15000** images. Utilized **principal component analysis (PCA)** to evaluate the model and data. Compared performance with a **YOLOv5 model**.

Computer-Vision | Backend | GitHub

Oct 2023 - Jan 2024

- Applied problem-solving skills to develop an object recognition system in C++ using advanced image processing algorithms, improving object radius and orientation accuracy by 99%.
- Optimized edge detection with the Hough Transform, reducing processing time by 35% and enhancing real-time image analysis.
- Implemented re-shading and albedo calculations in C++, achieving **99.5**% accuracy in object separation for datasets of **15,000+** images.

Vulkan Game Engine | Full-Stack | GitHub

Sep 2023 - Jan 2024

 Developed a game engine using C++ and Vulkan API, employing frustum culling to optimize rendering performance, resulting in a 20% increase in frame rate. Utilized the game engine to create a game, enhancing gameplay mechanics and graphics quality.

BestBuy-Product-Scraper | Backend | GitHub

Jul 2023 - Sep 2023

 Engineered a reliable web scraper using Python, Selenium, and BeautifulSoup4 to extract real-time product data from Best Buy, including prices, availability, and SKUs.