RALPH YOHAN DE GUZMAN

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EDUCATION

The University of Chicago   **Chicago, IL**
Bachelor of Science in Computer Science   *Expected June 2027*
- **Specialization:** Machine Learning
- **Relevant Coursework by Summer 2025:** Data Structures and Algorithms, Object-Oriented Programming, Systems Programming, Statistics, Discrete Mathematics, Machine Learning, Theory of Algorithms

EXPERIENCE

Goalday+   **Remote**
Software Engineer Intern   *July 2024 – Current*
- Led the development of company's Google Chrome extension, utilizing AI to help B2B founders source customers, resulting in increased lead generation efficiency.
- Collected and processed user data from LinkedIn using the Voyager API, Playwright, and MySQL.
- Experimented with OpenAI's text embedding models to rank LinkedIn connections based on product relevance.
- Applied asynchronous programming and created clear documentation to ensure a seamless flow with company's backend.

Consulate of Colombia   **Chicago, IL**
Software Engineer Intern   *June 2024 – August 2024*
- Implemented a multi-language chatbot using OpenAI, significantly enhancing the consulate's ability to respond to more queries.
- Engineered a scalable backend system with Flask and Twilio to manage incoming WhatsApp messages, achieving an average response time of 3 seconds or less.

Pritzker School of Molecular Engineering   **Chicago, IL**
UChicago Research Assistant   *May 2022 – July 2022*
- Familiarized working with Arduino boards, Raspberry Pi, and the command line while testing Dye Sensitized Solar Cell voltage conversion efficiency factors like resistance, solar radiation intensity, and electrolyte abundance.
- Examined energy reaction between blueberry juice and TiO_2 coating with self-generated computer models.

PROJECTS

Centralized Sneaker Platform   **Chicago, IL**
Full-Stack Project   *August 2024 – Current*
- Built a full-stack application integrating sneaker market data, online performance reviews, and outfit inspiration images.
- Used Node.js, Playwright, and MySQL to webscrape data from over 5000 pairs of shoes from StockX, overcoming their bot detection mechanisms.
- Created visualizations using Matplotlib, enabling users to easily track and analyze sneaker price trends on the frontend.

Handwritten Digit Recognition   **Chicago, IL**
Machine Learning Project   *July 2024 – June 2024*
- Trained a Convolutional Neural Network by using pooling layers for feature extraction and classification.
- Achieved accuracy of 95.5% on the MNIST handwritten digit dataset using NumPy, TensorFlow, and Keras.
- Optimized the model's performance through hyperparameter tuning, data augmentation, and early stopping.

Gateway   **Chicago, IL**
Startup   *Jan 2024 – May 2024*
- Co-Founded an application platform that prioritizes true learning experiences for motivated undergrads.
- Prototyped the frontend of the MVP in Figma and React.js, implementing a Tinder-style swipe mechanic.
- Earned 4th place in the 100 Days Challenge, a UChicago-based startup competition.

SKILLS

Languages: Python, JavaScript, Java, C, R
Frameworks and Databases: Node.js, React.js, MySQL, MongoDB
Honors: Valedictorian, CB National Recognition, UChicago Trott Scholar