# Rafael Chen

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## EDUCATION

**Johns Hopkins University | Baltimore, MD**                                                     **Graduating May 2027**

　　B.S Computer Science, Applied Mathematics and Statistics.
　　**GPA 3.7/4.0 (Dean's List).**

**Relevant Courses:** Gateway Computing: JAVA, Intermediate Programming, Data Structures, Mathematical Foundations for CS, Computer Systems Fundamentals, The Ethics of AI and Automation.

## SKILLS

**Programming Languages:** Java, C, C++, Go, JavaScript, R
**Developer Tools/Frameworks:** Git, Docker, Unix/Linux, Node.js, React, VSCode, SQL

## EXPERIENCE

**Software Engineer Intern <GoLang, Javascript Node.js, React, SQL, AWS>**                                          New York, NY
*Munch Insights*                                                                                                   *May 2024 - Present*
- Designing an Apple Wallet pass generation system, integrating with API for personalized loyalty passes.
- Developed SMS image uploading and compression system for promotions using AWS S3 and GoLang.
- Optimized compatibility with JPEG and PNG formats; Improved session management efficiency, resulting in a 15% reduction in API response time, benefiting over 2,000+ concurrent customers.

**Operations Intern**                                                                                              Queens, NY
*Hyatt Place Flushing*                                                                                            *March - June 2023*
- Managed the quality of the hotel, enhancing operational efficiency and guest satisfaction by 20%.
- Directed reservation system operations using Oracle, including real-time adjustments and check-in automation.
- Represented the hotel manager as the primary liaison; Managed POS register, servicing 150+ daily customers.

**Research Fellow <R, Tableau, JASP>**                                                                            New York, NY
*International Socioeconomics Laboratory*                                                                         *May - Sep 2021*
- Conducted research on food insecurity in New York City under a Principal Investigator from Yale Law School.
- Presented our findings to Queens' Borough President Donovan Richards, leading to food distribution programs like Nourish NY serving 1000+ families; Received an honorable mention in the 2021 Summer ISL Symposium.
- Analyzed global survey data and publications to identify social disparities in NY neighborhoods. Conducted over 15 statistical tests and visualized data, highlighting a 15% increase in food insecurity in underserved areas.

**Teaching Assistant**                                                                                            New York, NY
*Youth4AM*                                                                                                        *June - Sep 2020*
- Taught SHSAT material to 200+ students, achieving a 95% satisfaction rate; Graded and provided feedback on student assignments, contributing to a 24% increase in students' practice test scores.
- Received recognition from Senators John C. Liu & Toby Ann Stavisky for outstanding service.

## PROJECTS

**ChessPro: Command-Line Chess Game** | **<C++, Linux>**                                                          *Project Lead, April 2024*
- Developed a command-line interface enabling interaction with commands for moving pieces, saving/loading game states, and displaying a board with color-coded pieces, resulting in a 25% increase in user engagement.
- Implemented copy constructors and assignment operators to ensure robust copying of board states, reducing runtime by 50% during state transitions; Created a Mystery Piece game mode in the chess framework.

**Photoshop Lite** | **<C, Linux>**                                                                               *Project Lead, Feb - March 2024*
- Constructed robust image processing algorithms, including Gaussian blur, grayscale conversion, blending, rotation, pointillism, and color saturation effects, significantly enhancing image manipulation capabilities.
- Implemented file I/O and image processing in C for a command-line tool, boosting efficiency by 30%.