# JASON NGUYEN

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#### **EDUCATION**

# **Rutgers University – Engineering Honors Academy**

**September 2021 – May 2025** 

Bachelor of Science, Computer Engineering

GPA 3.7

**Coursework:** Introduction to Artificial Intelligence, Distributed Deep Learning, Digital System Design, Machine Learning, Principles of Database Management, Software Engineering, Programming Methodology

## PROFESSIONAL EXPERIENCE

Vistar Media Philadelphia, PA

Software Engineering Intern

June 2024 –August 2024

- Designed and implemented reusable veneer components within a custom library to enhance the maintainability and efficiency of the front-end codebase in an Agile environment, utilizing React and MUI
- Revamped modal interfaces for campaign measurement data collection, ensuring seamless experience for over 100+ clients
- Collaborated with cross-functional teams to document user-inputted campaign data to the backend, maintaining data integrity

#### **Ec2 Software Solutions**

North Plainfield, NJ

Software Development Intern

 $May\ 2022-September\ 2022$ 

- Designed and implemented an availability calendar and user-centric dashboard, which enhanced the accessibility of 120+ customer's orders and 200+ medical facilities using frontend frameworks like ASP.net, Bootstrap, and Alpine.js
- Communicated with 9 developers and 120+ customers to debug and troubleshoot issues regarding user interface and servers
- Executed complex SQL queries to extract and analyze data, which helped optimize the performance of applications

ECPAT-USA

Piscataway, NJ

Software Extern

*May 2022 – September 2022* 

- Collaborated with ECPAT-USA on a project researching human trafficking trends in U.S. public transportation systems
- Utilized Feature Manipulation Engine (FME) software to transform 5 NIBRS datasets into visual and geographical maps
- Employed Tweepy API with Python to extract 1000+ tweets, using specific keywords for data collection

## PROJECTS & LEADERSHIP EXPERIENCE

## FitBud - Diet & Exercise Progress Tracker API

Link to project

Software Developer

January 2023 – May 2023

- Designed and implemented a comprehensive Full Stack, Open Source, web application to track and visualize users' daily diet and exercise routines that utilizes a microservice architecture for our Restful API
- Managed multiple data collections to store user information such as personal profiles, foods, and client-side preferences with MongoDB and Express as our main communication with our interactive interface using React and Bootstrap
- Implemented an authorization method to store unique user tokens for profiles and data involving hash-encryption methods

**Chess Robot**Software Developer & Speaker

<u>Link to project</u> January 2023 – May 2024

- Implemented algorithms in Arduino (C++) and Python for camera capture, image processing, square occupation and piece movement detection using tactics like delta matrices, perspective transformations, and threshold masks
- Utilized Python for serial communication between Raspberry PIs, microcontrollers, and LCD in conjunction with the Stockfish API to compute the next best chess moves for the robot and allow gantry actuation
- The project was distinguished for presentation against 40+ other groups two years in a row to a discerning audience of 200+ alumni, faculty, and professional engineers for its innovation and significance

Mathathon

Software Developer & Award Winner

Link to Project April 2024

- Designed a Full-Stack web application using Next.js, Tailwind, and MongoDB containing a roadmap to help K-12 students with math problems ranging from addition to calculus projects that uses level-unlocking functionality based on prerequesites
- Utilized OpenAI's API models in order to generate infinite questions in LaTeX given token-limiting prompts
- Awarded Best Use of AI in Education, Best Use of MongoDB, and First Choice awards during the DragonHacks hackathon

## **Rutgers Engineering Governing Council**

Piscataway, NJ

Webmaster

*September 2022 – May 2023* 

- Spearheaded website management, enhancing user experience using React for the Rutgers Engineering student body
- Leveraged digital tools like Google Analytics to track event attendance and website interactions, resulting in a measurable increase of 83% from previous years in student participation and council visibility
- Amplified student engagement by 30% through executing campaigns and events like Rutgers Day and Engineering Formal

### **SKILLS**

**Technical:** Next.js, Websockets, Java, Java Swing, Javascript, Python, MySQL, React.js, Node.js, Express.js, ASP.NET, HTML/CSS, Git, C/C++, Tableau, MATLAB, MongoDB, RESTful APIs, MUI, Bazel, Jenkins, Flask, Typescript, AWS, Agile, Docker