

# Luyu (Alex) Zeng

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## EDUCATION

- Carnegie Mellon University**, Pittsburgh, PA **08/2022 – 12/2023**  
*Master of Information Systems Management*  
Relevant Courses: Database Management, Machine Learning, Distributed Systems, Data Focused Python, Economic Analysis, Statistics for IT Managers, Digital Transformation, Agile Methods.
- Baruch College**, New York, NY **09/2017 – 06/2021**  
*Bachelor of Business Administration, Major: Finance, Minor: Physics*  
Relevant Courses: Corporate Finance, Investment Analysis, Service Operations Management, Object-Oriented Programming, Quantitative Physics II, Calculus II.

## SKILLS & CERTIFICATIONS

- Programming Languages:** Python, JAVA, C++, C#, HTML5, CSS3, JavaScript, jQuery, Bootstrap, Firebase, Node Js, Express-js, Handelbars.js, and ReactJS.
- Databases:** MySQL, MongoDB, Redis, Cassandra, Neo4j.
- Certifications:** Data Structures and Algorithms (Coursera), Introduction to Discrete Mathematics for Computer Science (Coursera), Java Programming and Software Engineering Fundamentals (Coursera), Mathematics for Machine Learning: Linear Algebra (Coursera), Full Stack Developer (Columbia Engineering Coding Boot Camp).

## ACADEMIC PROJECTS

- Machine Learning and Deep Learning in Genomics and Health (MIT)**, Cambridge, MA **07/2021 – 08/2021**
- Developed and deployed mathematical models that replicated the structure and function of biological neural networks.
  - Achieved breakthrough success by applying machine learning techniques for classifying chest X-ray images, improved overall classification accuracy by 13%.
- Algorithms and Applications in Data Mining (USC)**, Los Angeles, CA **01/2021 – 04/2021**
- Collected and processed extensive datasets, established an effective recommendation system for online shopping platforms.
  - Developed a complementary product recommendation system using big data from an e-commerce platform, and achieved a notable accuracy rate of 78% through proficient data mining.

## WORK EXPERIENCE

- Waffles**, Pittsburgh, PA **09/2023 – Present**  
*Founder, CEO*
- Initiated and led a startup that leverages machine learning for enhancing credit card benefits.
  - Developed proprietary algorithms improving user engagement and satisfaction.
  - Managing a diverse team including marketing, and data analysis, promoting collaboration and innovation.
- Lutheran Clinic**, Fujian, China **11/2021 – Present**  
*Public Health Data Analyst*
- Addressed critical health and hygiene needs in rural areas through public health work in a developing province.
  - Enhanced clinic efficiency and service quality with proposed digital medical data management systems
  - Improved clinic operations significantly by leading a data-driven initiative that upgraded medical equipment and optimized pharmaceutical storage.
- Summer Internship, Heinz College Career Services**, Pittsburgh, PA **06/2023 – 08/2023**  
*Intern, Full Stack Web Developer*
- Developed and integrated database systems, which streamlined operations and enhanced functionality.
  - Performed comprehensive market research, providing key insights for product design.
  - Played a pivotal role in designing product features, significantly improving user experience.
- Apple Inc.**, Cupertino, CA **09/2021 – 10/2021**  
*Machine Learning/AI Project Assistant*
- Engineered neural networks for accurate house price predictions.
  - Developed models for precise cancer classification using advanced neural network techniques.
  - Built and implemented a neural network for digit recognition and CIFAR-10 image classification.
  - Formulated comprehensive NLP models for efficient text prediction and automated text generation.