

# Eric Zhong

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## EDUCATION

### CORNELL UNIVERSITY

Ithaca, NY

Bachelor of Arts in Computer Science, Minor in Psychology

*Relevant Coursework:* Machine Learning, Artificial Intelligence, Analysis of Algorithms, Databases, Statistics and Probability, Linear Algebra, Discrete Math, Object-Oriented Programming, Data Structures, Functional Programming, Networks

## EXPERIENCE

### DEEP LEARNING SOFTWARE DEVELOPMENT ENGINEER INTERN

Seattle, WA

*Amazon Web Services*

May 2024-Present

- Streamline access of Deep Learning AMI strings, allowing AWS customers to easily access information without API calls.
- Validate Deep Learning AMI strings across all Amazon Web Service regions to ensure AMI consistency across all areas.
- Design an SNS and Lambda backend that displays Deep Learning AWS strings automatically for the AWS Asimov team.

### PRODUCT MANAGER & TECHNICAL LEAD

Ithaca, NY

*Artificial Intelligence Objective Pain Detection App*

May 2024-Present

- Devise onboarding, sprints, and milestones to familiarize developers with using AI and sentiment analysis.
- Construct frontend and backend for hospital patients to monitor and quantify pain levels to reduce pain perception bias.
- Coordinate with professors and Post Doctoral students to track app development progress and ensure product quality.

### ARTIFICIAL INTELLIGENCE SOFTWARE DEVELOPMENT ENGINEER INTERN

Seattle, WA

*Amazon Web Services*

May 2023-August 2023

- Analyzed Deep Learning Containers to transport virtual environments and promote development and testing efficiency.
- Standardized availability canary system that maintains docker image, tags, and SHA consistency within server regions.
- Implemented a canary backend scheme to continuously run code tests while reducing the server cost by 25%.

### DATA SCIENTIST & SOFTWARE DEVELOPMENT ENGINEER

Ithaca, NY

*Environmental Data and Governance Initiative*

December 2022-January 2024

- Composed report cards for all 435 congressional districts to expose environmental violations and increase accountability.
- Developed statistical code to analyze and visualize the extent of environmental violations by the oil and gas industries.
- Web scraped Census data and used Numpy and AI to track the trends of environmental violations committed by district.

### SOFTWARE DEVELOPMENT ENGINEER

Ithaca, NY

*Xenophobia Meter Project*

August 2022-January 2023

- Researched xenophobia in history and collected Islamophobic tweets from political parties for preprocessing and analysis.
- Enacted APIs to translate tweets to English while maintaining syntactic integrity and meaning authenticity for training.
- Systematized xenophobia rating system and gauged racism in a tweet, increasing accuracy rate from 43% to 97%.

### AMAZON FUTURE ENGINEER & SOFTWARE DEVELOPMENT ENGINEER INTERN

Seattle, WA

*Amazon Web Services*

May 2022-August 2022

- Assembled Amazon Web Service (AWS) computer resource rental system and remodel code testing scheme.
- Programmed Alexa application to use humor and therapy techniques to promote mindfulness within the workplace.
- Reorganized test request system to prevent resource allocation conflicts across teams and boost efficiency by 37%.

## ACTIVITIES

### STOCK PRICE PREDICTION

May 2024-Present

- Preprocess historical stock data using yfinance and apply ARIMA to optimize parameters and forecast time series.
- Decompose data into components using Fourier Transformation for data prediction and use models to visualize trends.
- Train deep learning models to predict stock prices using MinMaxScaler to scale features and evaluate them using metrics.

### IMC PROSPERITY TRADING COMPETITION

April 2024

- Leveraged Python APIs to create and refine trading algorithms and used R to analyze data and validate models.
- Employed statistics, machine learning, and predictive modeling to analyze large datasets and identify market patterns.

## TECHNICAL SKILLS

Python, Java, OCaml, R, JavaScript, SQL, MERN, Pandas, NumPy, AWS, DLAMI, Conda, Tensorflow, Jupyter Notebooks, Git