# Caroline Zhu

717-552-6372 | wzhucaroline@gmail.com | https://www.linkedin.com/in/carzh/ | https://www.carolinezhu.com/

## EDUCATION

**Northeastern University** — Boston, MA
*Bachelor of Science in Computer Science with AI Concentration, Minor in Interaction Design* — *Sep. 2019 – May 2023*

**GPA:** 3.70 / 4.0 — Dean's List

**Relevant Coursework:** Natural Language Processing, Algorithms, Object-Oriented Design, Computer Systems, Artificial Intelligence, Database Design, Machine Learning

## EXPERIENCE

**Software Engineering Intern** — May 2022 – Jul 2022
*Microsoft* — *Bellevue, WA*
- Refactored benchmarking repository that ran NLP models locally & on AML Compute Clusters.
- Created & managed Dockerfiles; wrote examples & bug fixes for the huggingface Optimum library.

**Teaching Assistant** — Sep. 2020 – May 2022
*Northeastern University* — *Boston, MA*
- **Courses covered:** Discrete Structures, Fundamentals of CS 2, Object-Oriented Design
- Hosted weekly office hours to tutor students on fundamental computer science concepts.
- Graded and provided feedback on students' assignments. Supervised labs of roughly 40 students.

**Software Engineering Intern** — Jul. 2021 – Jan. 2022
*Best Buy Health* — *Remote*
- Supported the launch of an Android app as the main software engineer on the team.
- Used agile development practices to implement timing and tracking features for two Android apps geared towards research participants. Built with **Vue.js**, **Node.js**, and **Java**.
- Set up and maintained **AWS servers** that served as the backend for these apps.

**Software Engineer** — Mar. 2020 – May 2021
*FutureScape Engineering* — *Boston, MA*
- Created branding materials, product materials, and wireframes for commercial and nonprofit use, seen by hundreds of people. Produced with **Adobe XD** and **Adobe Illustrator**.
- Designed and implemented a GUI using **C#** that allowed users to read and write RFID tags through a connected microcontroller. Worked with bit manipulation and interpreted client instructions on a tight deadline.

## PROJECTS

**SpotiStat** | *Python, SQL* — Jun. 2021
- Used the Spotify API and SQL to build up a database of users, their top songs, friends, and playlists. Created logical models of the database using MySQL Workbench.
- Build a Python backend application that allows users to connect and create playlists generated based off of their tastes. Utilized linear algebra to compute similarity between users' tastes.

**Political Classifier** | *Python* — Jun. 2021
- Classified tweets by political party based on American politics. Improved performance metrics by roughly 15% using normalization and hyperparameter tweaking.
- Scraped and processed tweets from Twitter with a Python library. Applied numerous normalization techniques such as removing stopwords, normalizing case, and manipulating emojis and hashtags using Python.
- Employed the transformers library and multiple BERT models to process tweets into vectors. Used Tensorflow logistic regression trained on the labelled tweet vectors. Also provided the option of reading/writing word embeddings from a CSV file.

## TECHNICAL SKILLS

**Languages**: Java, Python, HTML/CSS, JavaScript (Node.js, Vue.js), SQL, C, C#
**Developer Tools**: Git, AWS, Adobe (Illustrator, Photoshop, XD, InDesign), Figma, MySQL Workbench, Linux

## INTERESTS

AI & natural language processing, crossword puzzles, knitting, crochet, oil painting, paddle boarding