# LIZ SIYUN WANG

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#### **EDUCATION**

Cornell Tech (Cornell University), New York, NY

May 2025

Jacobs Technion-Cornell Dual Master of Science Degrees, Concentrations in Connective Media and Data Science

Relevant Coursework: Algorithms and Data Structures for Applications, Machine Learning Engineering, HCI and Design

The University of Southern California, Los Angeles, CA

May 2023

Bachelor of Arts in Applied Mathematics (AMCM) and Data Science

Relevant Coursework: Applied Artificial Intelligence, Full-Stack Web Development, Mathematical Statistics

Honors: Dean's List, Academic Achievement Awards

### **TECHNICAL SKILLS**

Coding Languages: Other Tools:

Python (Scikit-Learn, TensorFlow, Pandas, NumPy, Matplotlib, NLTK), Java, JavaScript, HTML, CSS, SQL

AWS, Hadoop, MongoDB, Spark, MATLAB, Excel, Figma, Flask, Microsoft Office

#### PROFESSIONAL EXPERIENCE

# AI Camp Inc., NLP Track Data Science Intern, Palo Alto, CA

May 2022 - Aug 2022

- Developed a healthcare consultant chatbot using Python by applying the **DialoGPT** model. Deployed the solution into a **Discord** bot
- Led 18 students to develop 3 full-stack NLP applications using Python. Instructed and oversaw tasks including data preparation, model training, front-end design with HTML/CSS/JavaScript, back-end development, and model deployment with Flask
- Mentored 3 teams and managed product development for the teams; ranked top 5 out of 50 mentors across the camp

# Lenovo Group Ltd., Data Science Intern, Beijing, China

Aug 2020 - Aug 2021

- Curated a dataset of 75k website data samples for the Automated Essay Scoring project by self-learning beautifulsoup, regex, and multithreading techniques
- Presented research at SIGIR 2022 on a dialogue model adept at finding common ground with conversation partners

## ACADEMIC PROJECTS

MiniTorch, Cornell Tech (Python)

Fall 2023

- A simple, easy-to-read, test, and incremental Python reimplementation of the Torch API
- Implemented efficient tensor objects through indexing, storage, transposition, and broadcasting to optimize the auto-differentiation system originally built around scalars
- Implemented efficient map, zip, reduce, and matrix multiplication functions by leveraging parallelization. Extended these optimizations to CUDA operations, resulting in a 10x speedup of the time/epoch reported by the trainer on both CPU and GPT setup

#### Text Editor Application, Coursera (Java)

Summer 2023

A software application with spelling check, autocomplete, Markov text generation, word path, and readability scoring features

- Sped up computation of the Flesch readability score by conducting a one-pass analysis of the document to count syllables, words, and sentences efficiently
- Implemented a Trie data structure that includes inserting words, checking word validity, and predicting completions for a given prefix
- Realized spelling correction by creating a NearbyWord class for generating single-operation word mutations
- Developed a Markov Chain-based text generator to create specified amounts of text from user-provided input

## Fighting Scientific Denialism, USC (Python)

Spring 2022

A research project aimed at combating the dissemination of climate change misinformation on social media to promote public advocacy

- Constructed an LDA model using Python that filtered out 91.8% of irrelevant tweets based on their relevancy to each topic
- Trained a random forest classifier to detect "laymansplaining" and "harassment" tweets
- Delivered the project to 10 research professors on behalf of the team. Organized feedback into a report

Parkable, USC (Figma)

Spring 2022

An interactive prototype of a parking space reservation application

- Ideated a product to ensure an efficient, pleasant parking experience for users. Featured nearby parking discovery, detailed lot info (eg. availability, pricing, hours), visualizing lot layouts, space reservation, e-ticketing, and user reviews
- Managed the entire **product cycle**, conducting user interviews and contextual inquiries, storyboarding, wireframing, paper/digital prototyping, and overseeing design choices (typography, color). Culminated in crafting an interactive **Figma** prototype

#### PERSONAL INFORMATION

Hobbies: UI/UX Design, Oil Painting, Snowboarding, Tennis, Piano

Immigration Status: US Permanent Resident