# **Andrew Lin**

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# **Education**

#### Masters in Computer Science, University of Massachusetts Amherst

- · Accelerated Program, Data Science focused
- · Completed Courses: PhD Level ML, RL, Deep Learning, Linear Algebra

### Bachelor of Science in Computer Science, University of Massachusetts Amherst

Sept 2021 - May 2024

**Expected Graduation: May 2025** 

- · Major GPA: 4.0
- · Dean's List 2021-2024, Phi Kappa Phi member

# **Work Experience**

### Captions, LLC - a16z and Sequoia-backed startup

Jun 2023 - Aug 2023

Software Engineering Intern

- Worked as a React and Express developer on the web team for Captions, a NYC-based startup that offers Al-powered video editing tools.
- Expanded accessibility of Caption services by porting Al Music, a feature that lets users generate music based on genre, mood, and theme and add it to a video, to Web.
- Contributed to existing React UI component library, set up the page within a NextJS server, and collaborated with Senior Engineers to implement start-to-finish flow for the feature.
- Designed and implemented RESTful APIs in Express that communicate via Axios to multiple external services to support AI
  Music functionality.
- Reduced team development risks by creating a CICD pipeline powered by GitHub Actions for releasing to a staging Kubernetes cluster in Google Cloud.

### **LG Energy Solution Vertech**

Jul 2022 - Aug 2022

Data Science Intern

- Improved usability of an existing data dump by creating a data parser script in Python with Pandas to rearrange large .csv battery site data files into a more desirable format.
- Improved the usability of battery fade estimation software by designing and implementing user input checks in Python.
- Helped with project planning by researching and presenting on the technological state of and demand for virtual power plants as well as market competition.

# **Projects**

#### LLMs vs Established Text Augmentation Techniques for Classification

Sep 2024 - Dec 2024

- Compared classification improvements of various data augmentation techniques on a Spotify lyrics dataset and a Linkedin Job Postings dataset. Both included significant class imbalances.
- Implemented random swapping, insertion, deletion and synonym replacement and used them to augment both datasets. Other augmentation techniques were back translation, and LLM prompted augmentation.
- Fine tuned a pre-trained BERT model and implemented and trained a BOW SVM in Pytorch on all augmented/original sets, compared f1 score performances, and generated t-SNE plots for visualization.

#### **Employee Scheduling Web Tool**

Feb 2023 - May 2023

- · Worked in a team of 9 to design and create the web app Punch Time, an hourly employee time-tracking tool.
- Designed parts of the data model and API and set up endpoints to support CRUD operations using Express and Mongoose to communicate with a MongoDB cluster.

#### **Stock Market Web Simulator**

Feb 2023 - May 2023

- Worked in a team of 4 to design and create the web app Invego, a stock market-like simulator where users manage and sell their personal stock, as well as buy and trade the stocks of other users.
- Contributed to Figma designs and HTML implementation, utilizing CSS styling and animations. Wired up routing between pages, integrated front and backend using Javascript fetch API, and updated DOM accordingly via Javascript.

## **Skills**

Languages: Python · JavaScript · Java · SQL · HTML · CSS

 $\textbf{Frameworks/Libraries: Numpy} \cdot \textbf{Pandas} \cdot \textbf{scikit-learn} \cdot \textbf{PyTorch} \cdot \textbf{React} \cdot \textbf{Express}$ 

Tools: Git · MongoDB · Kubernetes · Github Actions