## **Bowen Yi**

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#### **EDUCATION**

# The University of Michigan, Ann Arbor, MI

Bachelor of Science in Computer Science

- GPA: 3.83, with University Honors
- Related Coursework: Intro to Machine Learning, Natural Language Processing (Winter), Human-Centered ML (Winter), Information Retrieval (Winter), Foundations of Large Language Models (Winter)
- Research Interests: Natural Language Processing, Computational Social Sciences, Machine Learning

#### **SKILLS**

- Proficiency in Python, C++, C, Java, scikit-learn
- Intermediates/Basics in PyTorch, Assembly, Git, JavaScript, R, MATLAB, SQL, Azure

#### **EXPERIENCE**

## University of Michigan, Ann Arbor, MI

Aug. 2023 - Present

Expected Dec. 2024

Research Assistant, Podcast Project with CSE Prof. David Jurgens

- Research the social dynamics of podcasts by actively employing deep learning and NLP techniques
- Initiate pipelines for data cleansing, topic modeling, and result interpretation on over one million podcasts
- Identify, interpret, and illustrate the most common podcast topics during all time or important social events

### University of California - San Diego, La Jolla, CA

Sep. 2022 - Nov. 2022

Research Assistant, Twitter Project with CSE Prof. Imani Munyaka

- Co-developed a program to extract tweets of California senators using Python, the Beautiful Soup library, and the Tweepy library
- Researched R language to visualize data and analyze the political landscape in California

#### **PROJECTS**

Prime Video Reviews Classifier | Natural language Processing, Sentiment Analysis, scikit-learn, NLTK

- Trained support vector machines and Word2Vec models to classify more than one million movie reviews into three possible sentiments, achieving 85%+ accuracy on the testing dataset
- Researched and exhaustively reported feature engineering and hyperparameter tuning for classifier design **Tourist Attractions Classifier** | *Computer Vision*, *Supervised Deep Learning*, *Python* 
  - Designed and implemented a multilevel Resnet model, achieving 99% AUROC on classifying tourist attractions on the testing dataset
  - Researched and applied transfer learning and data augmentation to improve the model robustness

# **Piazza Posts Classifier** | Supervised Learning, C++

- Created a Bernoulli native Bayes Classifier on 10000+ Piazza posts and predicted topics of input posts, with 91% accuracy
- Provided a custom implementation of the underlying tree-based map data structure

### **Image Carving Program** | *Computer Vision, C++, C*

- Implemented a content-aware seam carving algorithm to resize PPM images without distortion
- Managed dynamic memory and matrices, accomplishing a resizing accuracy rate of 98.7%

# LEADERSHIP & COMMUNITY INVOLVEMENT

# Professional Events Leader, ACM @ UC San Diego

Sep. 2022 - Dec. 2022

• Initiated 5+ resume-editing and networking events with 200+ attendees for UCSD's ACM chapter

# Volunteer College Application Tutor, Self-Employed

Nov. 2021 - Present

• Guided 10+ domestic and international high school students from underprivileged backgrounds on the college application process and brainstormed 50+ college essays