Bowen Yi

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EDUCATION

The University of Michigan, Ann Arbor, MI   Expected Dec. 2024
Bachelor of Science in Computer Science
- GPA: 3.78, with University Honors
- Related Coursework: Intro to Machine Learning, Human-Centered Software, Natural Language Processing (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, Mallet
- Intermediates/Basics in PyTorch, scikit-learn, Assembly, Git, JavaScript, R, MATLAB, SQL, Azure

EXPERIENCE

University of Michigan, Ann Arbor, MI   Aug. 2023 - Present
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

Amazon Prime Reviews Classifier | *Natural language Processing*, *Python, scikit-learn, NLTK*
- Trained support vector machines and Word2Vec models to classify 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 98% accuracy rate on classifying tourist attractions in the training 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