

Catherine Zhang

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Education

University of Michigan | Ann Arbor, MI

Expected May 2022

Bachelor of Science in Computer Science/Psychology, Minor in Business

- GPA: 3.75/4.0
- Relevant Coursework: Data Structures and Algorithms, Foundations of Comp. Sci., Programming Languages & Systems, Database Management, Cognitive Psychology, Advanced Branding

Experience

Machine Learning and Biometrics Research Assistant | University of Michigan

Jan 2019 - Jan 2020

- Executed PostgreSQL queries on university databases containing clinical data from over 4 million patients to extract relevant data into compatible file formats for further usage in diagnoses
- Cleaned data using Python pandas library to account for missing data and variations in data type
- Trained random forest models implemented with scikit-learn library to predict spinal abnormalities and make differential diagnoses between soft-tissue disease and multiple sclerosis with 80% accuracy

Brand Management Intern | Shanghai Jiao Tong University

May 2019 - Aug 2019

- Assessed marketing and customer service strategies to create comprehensive business portfolios of industry leaders in fields like convention/trade-show centers and high-speed railways companies
- Performed competitive analysis for Shanghai Exhibition Center to revamp company values
- Presented pitch decks and globalization initiatives to local businesses to improve brand awareness

Activities

Generation Asian Pacific American Culture Show | Design Chair | University of Michigan

Nov 2019 - present

- Organized community service events and workshops to showcase talent and culture of Asian-American community on campus and advocate for social justice issues pertaining to Asian-Americans
- Designed logos, flyers, and graphics for use in advertising events and sponsorship grant packets

Kappa Phi Lambda Sorority Inc. | Liaison and Social Chair | University of Michigan

Jan 2019 - present

- Budgeted and organized for sorority related travels to conferences and events at other chapters
- Planned 4-5 social events per semester to build connections and promote cultural awareness within the Multicultural Greek community and Asian community on campus

K-motion Dance Club | Co-Leader | University of Michigan

Sept 2018 - present

- Booked rooms and scheduled weekly practices to teach choreographies and formations to members

Coding Projects

Personal Website | zhangscat.github.io

Gotta Catch 'em All | University of Michigan

Dec 2019

- Utilized data structures and adjacency matrices to implement Prim's algorithm and branch-and-bound algorithms in C++ to simulate journey of catching Pokémon and battling trainers in different regions
- Implemented heuristics for Travelling Salesman Problem to calculate optimal Pokémon catching route
- Wrote 600 lines of code from scratch and optimized runtime to be <2 sec. on test cases of 10,000+ samples
- Designed functions for command line and error handling to allow users to set flags and ensure proper input

Disease Detective | MHacks Hackathon

Oct 2018

- Self-learned Python to implement program diagnosing simple foodborne diseases utilizing TensorFlow
- Created chatbot using Twilio API to prompt user for symptoms of diseases and respond with prediction

Skills

- **Programming Skills:** C/C++, SQL, Java, JavaScript, Python, Git, Matlab, MongoDB, SPSS, HTML/CSS
- **Miscellaneous:** Microsoft Office, Canva, Adobe Illustrator, Mandarin