Xiaoxuan Zhang

Eligible to work for any U.S. employer | Willing to relocate and travel
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An energetic and trustworthy student with excellent time management skills. Staying excited for new challenges, striving to explore new horizons, and thriving in teams. I served as a team lead multiple times for software development and machine learning deployment projects during my past 3 years at UC San Diego. I have curated my projects on my personal website: https://andrinazxx.github.io/.

EDUCATION

University of California – San Diego (with B.S. / B.A. double majors) *September 2020 – Expected June 2024*
Bachelor of Science in Machine Learning & Neural Computation (Cognitive Science) Overall GPA: 3.87
Bachelor of Arts in Interdisciplinary Computing and the Arts (Computer Music & Music Technology) Major GPA: 4.0
Minor in Computer Science & Engineering

WORK EXPERIENCE

Software Development Engineer – Qualcomm Institute, San Diego, CA *June 2022 – Present*
- Leading a team of 4 on implementing Fourier Transform and Convolution for audio signal processing in Python and Pure Data.
- Deploying real-time adaptive acoustic models for beamforming algorithm with MATLAB, Pure Data and C++.
- Constructed and maintained QI Sonic Arts Official Website with CMS platform and HTML/CSS.
- Created Web scraping tools in Python with Beautiful Soup for following data collection and applied analysis.
- Generated HRTF filters with MATLAB codes and given databases.

Data Analyst and Market Researcher – LIMBER Prosthetics and Orthotics, San Diego, CA *July 2023 – Present*
- Led a team of 4: Analyzed, designed and introduced innovative strategy to LIMBER about entering international markets.
- Applied exploratory data analysis and visualization with Geopandas in Python and proficient research analysis skills.

Instructional Assistant for "Introduction to Python" – UC San Diego *August 2021 – March 2022*
- Led weekly review sessions and office hours. Hosted two Coding Labs and help students to debug in Python.
- Worked on and graded Coding Labs Assignments and Exams throughout the quarter.

E-Commerce Marketing (VMS) Intern – GlaxoSmithKline (GSK), Shanghai, China *January 2021 – June 2021*
- Helped organizing in promoting products in three top-tier E-commerce holiday campaigns on the top e-commerce platforms.
- Collected and analyzed data to provide consumer insights from E-commerce campaigns.
- Coordinated and managed meeting plans, collected meeting information, and created marketing materials.

LEADERSHIP EXPERIENCE

14 projects on my website: https://andrinazxx.github.io/ with Python, OpenCV, PyTorch, C, Pure Data and various programming skills

Music Genre Classification implementing kNN, SVM, CNN and RNN
- Led a team of 5, organized the meetings and frequently met the professor and the teaching assistants.
- Applied Exploratory Data Analysis and Data Visualization skills, after collected dataset and wrangled the data.
- Implemented the Convolutional Neural Network. Tested the algorithm and fine-tuned the hyperparameters on GPU.
- Used: **Python** (PyTorch, scikit learn, seaborn, numpy, pandas…), **Data Analysis**, **Data Visualization**, **Leadership**, **PM**

Neural Networks and SVR implementation for earthquake prediction
- Led a team of 4, organized the meetings and frequently met the professor and edited the video for final presentation.
- Raised the research question and hypothesis; collected dataset and wrangled the data.
- Implemented the neural network model individually. Tested the algorithm and fine-tuned the hyperparameters with teammates.
- Used: **Python** (TensorFlow, geopandas, matplotlib…), **Data Analysis**, **Leadership**, **Project Management**, **Public Speaking**

Topological Data Analysis to Phoneme Neural Signals [Brain-Computer Interface Hackathon top prize]
- Led a team of 3, won one of the top prizes in BCI Hackathon instructed by professor Vikash Gilja and several PhD students.
- Led the designing of research topic from a perspective with mixtures in neuroscience, digital signal processing and topology.
- Cleaned the dataset, wrangled the data, and contributed to the Topological Data Analysis (TDA).
- Used: **Python** (PySpike, giotto-tda, seaborn…), **Data Analysis**, **Technical Communication**, **Public Speaking**

SKILL SET

Technical Skills	Python, Java, MATLAB, C++, C, Pure Data, Max/MSP, Xcode, LaTeX, Git, XML, Excel, JavaScript, CAD
Production	Ableton Live (Production, Mixing & mastering), Pro Tools, Final Cut Pro, Adobe Creative Suite, Figma, Canva
Soft Skills	Leadership, Critical thinking, Collaboration in teams / with team leads, Detail Oriented, Time Management

ORGANIZATIONS

EMG prediction and applied machine learning prosthetics – Triton NeuroTech at UCSD ECE *March 2023 – Present*
- Analyzing EMG data of fingers to realize movement prediction, which can feed back to the prosthetic hand (created by our hardware group) to automate its finger movement.

IoT Spotify Remote – Project in Box at UCSD ECE *October 2022 – December 2022*
- Applied a Wi-Fi microchip to navigate through Spotify API, which makes our team able to have an IoT controller for our playlist.