

Yulu Pan

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EDUCATION

University of North Carolina at Chapel Hill

Master of Science

Major: Computer Science

Chapel Hill, NC

Aug 2023 - Dec 2024

University of North Carolina at Chapel Hill

Bachelor of Science

Major: Computer Science, Mathematics

Chapel Hill, NC

Aug 2021 - May 2023

GPA: 3.76/4.00

Brandeis University

Bachelor of Science

Major: Computer Science

Waltham, MA

Aug 2019 - May 2021

GPA: 3.94/4.00

RESEARCH EXPERIENCE

University of North Carolina at Chapel Hill

Research Assistant, Mentored by Soumyadip Sengupta

Chapel Hill, NC

Aug 2022 – Present

- Generated datasets to explore preservation of r-PPG signal in motion transfer between videos
- Utilized facial expression analysis tools to category and visualize the data
- Created large training datasets for predicting the best additional image angles improve 3D reconstruction quality
- Designed and trained a reinforcement learning model for best next angle prediction in 3D reconstruction

Nanjing University Natural Language Processing Lab

Research Assistant

Nanjing, China

June 2021 – Aug. 2021

- Extracted and cleaned policy data with python web scraping
- Trained the data with natural language processing models to perform categorize task and visualized with knowledge graph

Brandeis Brain Computer Interface Club

Research Assistant

Waltham, MA

Dec 2020 – May 2021

- Used Machine Learning algorithms such as deep CNN and clustering to analyze EEG signals for human behavior patterns
- Conducted literature review, data preprocessing and analysis in Matlab

TEACHING EXPERIENCE

University of North Carolina at Chapel Hill

Undergraduate Learning Assistant

Chapel Hill, NC

Aug 2022 – Present

- Assisted professors with holding office hours, exams write up and grading on topics such as data structure, code organization for large project, industry standard developing tools in Java

Brandeis University

Teaching Assistant

Waltham, MA

June 2020 – May 2021

- Created test cases for assignments and held office hours for data structure and algorithm analysis class in Java
- Designed and held weekly recitations for course material practice and answering students' questions

PROFESSIONAL EXPERIENCE

Mobile APP: Branda

Software Engineer

Waltham, MA

March 2020 - May 2021

Branda is a mobile App working as a two-sided platform to connect Brandeis students with essential campus services

- Added features such as dark mode, COVID information page to the app
- Rewrote the backend platform with React and Next.js for better maintenance and framework

ACTIVITIES

Brandeis VALE Project

Project Leader

Waltham, MA

Jan 2020 - May 2021

- Scanned anthropology artifacts and reconstructed them as 3D models
- Built a 3D interactive VR museum with Unity engine to display the artifacts

Publications

Akshay Paruchuri, Xin Liu, **Yulu Pan**, Shwetak Patel, Daniel McDuff, and Soumyadip Sengupta. Motion Matters: Neural Motion Transfer for Better Camera Physiological Sensing. *arXiv preprint arXiv:2303.12059*.

SKILLS

Software: Java, Python, MATLAB, Unity/C#, Machine Learning (Pytorch)

Languages: English (*Proficient*), Mandarin (*Native*)