

Yulu Pan

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EDUCATION

- University of North Carolina at Chapel Hill | Chapel Hill, NC** *Aug 2023 - May 2025*
- **M.S in Computer Science**
- University of North Carolina at Chapel Hill | Chapel Hill, NC** *Aug 2021- May 2023*
- **B.S in Computer Science, Mathematics** **GPA: 3.74/4.00**
- Brandeis University (Transferred) | Waltham, MA** *Aug 2019 - May 2021*
- **Major in Computer Science** **GPA: 3.94/4.00**

RESEARCH EXPERIENCE

- Zylka Lab - UNC Neuroscience Center | Chapel Hill, NC** *Aug 2023 – Present*
Graduate Research Assistant
- Deployed machine learning models to automate measure of spontaneous pain in mice from facial expressions
 - Conduct analysis on mice facial action units and tracked movements
- University of North Carolina at Chapel Hill | Chapel Hill, NC** *Aug 2022 – May 2023*
Research Assistant, Mentored by Soumyadip “Roni” Sengupta
- 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
 - Designed and trained a reinforcement learning model for best next angle prediction in 3D reconstruction
- Nanjing University Natural Language Processing Lab | Nanjing, China** *June 2021 – Aug 2021*
Research Assistant
- 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 | Waltham, MA** *Dec 2020 – May 2021*
Research Assistant
- Deployed machine learning algorithms such as deep CNN and clustering to analyze EEG signals for human behavior patterns
 - Performed literature review, data preprocessing and analysis in Matlab

TEACHING EXPERIENCE

- University of North Carolina at Chapel Hill | Chapel Hill, NC** *Aug 2022 – May 2023*
Undergraduate Learning Assistant (Introduction to Scientific Programming | Foundations of Programming)
- Collaborated with professors with holding office hours, exams write up and grading on topics such as data structures, object-oriented programming concepts, code organization for large project, industry standard developing tools in Java
- Brandeis University | Waltham, MA** *June 2020 – May 2021*
Teaching Assistant (Data Structure and Algorithm Analysis)
- Created test cases for assignments and held office hours for class contents and students’ code debugging in Java
 - Designed and held weekly recitations for course material practice and answering students’ questions

PROFESSIONAL EXPERIENCE

- Mobile APP: Branda | Waltham, MA** *March 2020 - May 2021*
Software Engineer
- Branda is a mobile App working as a two-sided platform to connect Brandeis students with essential campus services*
- Involved in software development such as adding features such as dark mode, COVID information page to the mobile app
 - Rewrote the backend platform with React and Next.js for better maintenance and framework

PUBLICATIONS

- Yin, JianJian, Zheng, Zhichao, **Pan, Yulu**, Gu, Yanhui, and Chen, Yi, Semi-Supervised Semantic Segmentation with Multi-Reliability and Multi-Level Feature Augmentation. *Expert Systems with Applications*, Volume 233, 15 December 2023, 120973
- 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*)