Hang Yin

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EDUCATION

Northwestern University **Evanston, IL**
B.S. with honors in Computer Science, summa cum laude *June 2022*
M.S. in Robotics *Sep. 2022 - Dec. 2023*
Cumulative GPA: **3.95/4.00** | Dean's List (8/8 Quarters)
Coursework: Agile Software Development, Design and Analysis of Algorithms, Deep Learning, Machine Learning, Operating Systems

PROFESSIONAL EXPERIENCE

Human Computer Interaction Research **Evanston, IL**
Undergraduate Researcher, Northwestern Delta Lab *Mar. 2021 – Present*
- Design and develop a scripting interface for mentors to translate their high level understanding of students' ineffective research and learning strategies into machine detectable conditions
- Conduct user studies and analyze quantitative and qualitative results to help with prototype iteration
- Wrote a grant proposal and awarded funding for research through the Undergraduate Research Grant program
- Compiled results and findings in the form of a 6-page research paper, which is now under review by CHI 2022

Machine Learning Research **Evanston, IL**
Undergraduate Researcher, Northwestern Image and Video Processing Lab *Mar. 2021 – Sep. 2021*
- Incorporated a Convolutional Neural Network to correct blurring as a result of motion during brain MRI acquisition
- Implemented a modification to the U-Net architecture and achieved an MSE of 3.3e-04
- Adopted FreeSurfer software to perform transformations on brain MRI and simulate blurring using real motion files

Machine Learning Research
Independent Researcher *Sep. 2020 – Sep. 2021*
- Implemented multi-head self-attention layers to perform on-line handwriting recognition
- Customized 2nd order Path Signature Feature Extraction for model input

Android App Development **Hangzhou, China**
Software Engineering Intern, Bwton Technology *Aug. 2019 – Sep. 2019*
- Contributed to improving an Android mobile application for metro QR code payment
- Performed unit and integration testing on multiple components

Projects

iExpressionNet Deep Learning Model **Evanston, IL**
EECS 435 Deep Learning Foundations *Jan. 2021 – Mar. 2021*
- Developed a Convolutional Neural Network to detect facial expressions based on the FER-13 dataset
- Established transfer learning to achieve 90%+ accuracy on user-specific dataset

TreeHealth Mobile Application **Evanston, IL**
CS 394 Agile Software Development *Mar. 2021 – June 2021*
- Built a React Native mobile app for tree researchers to visualize data collected by dendrometer, sensors that record sap flow, etc.
- Utilized a charting library to display data from multiple sources with a unified scale so that users can see how different factors interact

LifeCapsule Mobile Application **Evanston, IL**
CS 394 Agile Software Development *Mar. 2021 – June 2021*
- Constructed a React Native mobile app for journaling that requires minimal user input
- Adapted a charting library to display trends and statistics about user's week

LEADERSHIP EXPERIENCE

CHISRO Forum **Shenzhen, China**
Cofounder & Manager *Aug. 2017 – June 2019*
- Collaborated with an Israeli robotics team to build an online forum for sharing manufacturing resources and technical tutorials
- Grew forum to host 500+ users across 4 countries

Team Mulan **Shenzhen, China**
Cofounder & Mentor *June 2018 – Sep. 2019*
- Co-founded and recruited members for team Mulan, the first all-girl robotics team in China
- Mentored the team on mechanical design, software control, and sponsorship management (fundraised 30k USD in 2019)

ADDITIONAL

Skills: Python, JavaScript, C/C++, Java, MATLAB; PyTorch; React, NodeJS; Firebase; Unix/Linux, Docker, GDB; Raspberry Pi