Shangjia Xu

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EDUCATION

Carnegie Mellon University   **August 2024 – December 2025**
Master of Science in Software Engineering   *Mountain View, CA*

Purdue University   **August 2020 – May 2024**
Bachelor of Science in Computer Science Honors - ***GPA - 3.85/4.00***   *West Lafayette, IN*
- Concentration in Machine Intelligence
- Minor in Mathematics and Music History & Theory
- Coursework: Compilers, Relational Database Systems, Data Structures and Algorithms, Operating Systems, Analysis of Algorithms, Data Mining & Machine Learning, Artificial Intelligence, Object-Oriented Programming, Foundations of Computer Science, Computer Architecture

EXPERIENCE

Control Algorithm Engineering Intern   **July 2023 – August 2023**
Yrobot Inc.   *Suzhou, China*
- Conducted an extensive literature review on gait analysis, synthesizing findings from over 20 research papers to identify the optimal methodologies for gait prediction
- Designed and developed an LSTM-based model with PyTorch for forecasting time series of gait parameters which achieved lower than 0.00002 MSE loss, providing more personalized assistance and real-time feedback for users of the Relink-ANK muscle armor

Undergraduate Data Science Researcher   **January 2023 – May 2023**
The Data Mine - Purdue University   *West Lafayette, IN*
- Collaborated with the Indiana Family and Social Services Administration (FSSA) on analyzing large datasets related to local individuals with disabilities
- Leveraged data analysis tools including SQL, Microsoft Azure, and Tableau to create visually compelling and insightful data representations
- Delivered a poster presentation at the Data Mine Corporate Partners Symposium to hundreds of industry professionals, providing insights and support for decision-making processes within the organization

Teaching Assistant   **June 2022 – December 2022**
Purdue University   *West Lafayette, IN*
- Supported over 400 undergraduate students in Computer Architecture and Systems Programming
- Conducted weekly office hours and lab sessions, offering tailored assistance and guidance for students on course materials and assignments

Winner of the Pitch Program   **June 2022 – July 2022**
TechPoint   *Indianapolis, IN*
- Collaborated in a cross-functional team, actively contributing ideas on recycling electric vehicle (EV) batteries
- Developed an application prototype with Figma which simulates the monitoring of bus stations reusing EV batteries
- Demonstrated the prototype during final presentation and achieved first place among 100 participants

PROJECTS

Chatbot Tweets Sentiment Analyzer | Python, NLP   **March 2023**
- Retrieved and analyzed over one million tweets using Twitter API to measure opinions towards recent generative AI models such as ChatGPT

Personal Website Frontend Development | HTML, CSS, JavaScript   **December 2022**
- Utilized React and Node.js to design and develop my website showcasing personal portfolio

Unix Shell | C/C++, Lex/Yacc, Agile   **March 2022**
- Developed a shell interpreter to parse and execute shell commands for Unix environment
- Combined behaviors of common shells including pipeline, I/O Redirection, sub-shell, and wildcard

TECHNICAL SKILLS

Programming Languages: Java, Python, C, C++, SQL, JavaScript, HTML
Developer Tools: IntelliJ IDEA, Visual Studio Code, Vim, Git, Figma, Microsoft Azure, Tableau
Languages: Chinese (Mandarin), English