WILLIAM (BILL) XIA

ADDRESS	**LINKS**	**CONTACT**
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QUALIFICATIONS

- **3+ years of experience** with full-stack AI software development, natural language processing (NLP), large language models (LLMs), data processing, and human-computer interaction (HCI).
- **First-author of 1 paper presented at ACL 2025** and 1 thesis paper; co-author of 3 additional papers.

EDUCATION

Bachelor of Science in Computer Science, Tufts University　　　　　　　Sept 2021 – May 2025
Minors in Mathematics & English
GPA: 3.81 / 4　　　　　　**Honors:** *Summa cum laude*; Senior Honors Thesis; Dean's List (all semesters)
Teaching: Programming Languages TA (4 semesters); led weekly recitations and office hours for 30+ students.

WORK EXPERIENCE

Dassault Systèmes, SolidWorks Product Management Team　　　　　　**Waltham, MA**
AI Product Management Intern | *Agentic AI, Ollama, Streamlit, Docker, Jenkins*　　June 2025 – Dec 2025
- **Developed and deployed a full-stack, local LLM agent** that interfaces with Dassault's internal web APIs; the agent improved access to analytics and documentation for 20+ SolidWorks project managers.
- **Deployed the AI assistant** within the Jenkins CI/CD pipeline, enabling secure, scalable access across internal cloud systems and reducing manual data retrieval time by 25%.

National Library of Medicine, Natural Language Processing Lab　　　　**Bethesda, MD**
Research Intern | *LLMs, Hugging Face, OpenAI API, PyTorch*　　June 2023 – May 2025
- **Designed and released JEBS**, a novel biomedical lexical simplification task and dataset comprising 21,595 annotated term-replacement pairs derived from 400 biomedical abstracts; developed end-to-end simplification system using BERT, Llama, and GPT-4o. Advised by Dr. Dina Demner-Fushman.
- **First-authored a paper** on JEBS presented at ACL 2025; co-authored a companion paper submitted to Journal of Biomedical Informatics and presented its findings at the 2024 Text Retrieval Conference.
- **Led development** of JEBS baseline models, which achieved strong domain-expert human evaluation scores across simplicity, accuracy, and brevity.

Tufts University, Human-Computer Interaction Lab　　　　　　　**Medford, MA**
Research Assistant | *Python, MATLAB, Data Science*　　May 2022 – May 2023
- **Conducted HCI research** under Prof. Robert Jacob on differentiating mental workload states in users performing complex cognitive tasks (e.g. chess, n-back, mental rotation) using a MUSE EEG headset.
- **Applied principal component analysis** in Python and MATLAB to extract features from EEG and chess game data for random-forest-based classification of cognitive load.
- **Co-authored 2 papers**: one analyzing the efficacy of the MUSE headset for detecting mental workload states (submitted to IEEE TCDS) and another on correlations between chess move quality and brainwave signals (presented at Neuroadaptive Technologies 2025).

FEATURED PROJECTS

Senior Honors Thesis | *LLMs, Ollama, LangChain, Agentic AI*　　　　Sept 2024 – May 2025
- **Conducted research** under Prof. Vasanth Sarathy and Prof. Matthias Scheutz on grounding LLM agents with natural language world models for embodied reasoning and creative problem solving.
- **First-authored a 57-page thesis paper** compiling my methods and results.

Senior Capstone Project | *ML, AWS, MySQL, Full-Stack Development*　　Sept 2024 – May 2025
- **Built an AI-powered lesson generation system** for ASLdeafined, an online American Sign Language education program.
- **Designed, deployed, and tested** the full-stack ML pipeline within ASLdeafined's website.

SKILLS

Programming Languages: Python, Java, C/C++/C#, JavaScript, Linux, SQL, OCaml, PHP, R, MATLAB
Other Technical: Hugging Face, Ollama, LangChain, PyTorch, MySQL, AWS, React.js, HTML, Git, Unity
Spoken Languages: English, Mandarin, Greek