Danniell Hu

734-747-0278 ● dannihu@umich.edu ● Ann Arbor, MI 48103
https://www.linkedin.com/in/danniell-hu/

EDUCATION

University of Michigan, Ann Arbor May 2023
B.S.E. in Computer Science

Coursework: Data Structures and Algorithms, Computer Architecture, Logic Circuit Synthesis and Optimization, Database Management Systems, Information Retrieval, Software for Accessibility, Software Engineering and Cognition

EXPERIENCE

Stryker Corporation – Medical Division, Acute Care Kalamazoo, MI
R&D Software Design Engineer July 2023 – Present

- Designed and developed front and back end software and PCBA board design for embedded systems on Stryker products, including hospital beds and mattresses using coldfire, renesas, etc. microcontrollers
- Collaborated seamlessly with cross-platform teams including test lab, quality assurance, hardware, electrical, software, marketing, and leadership, fostering effective communication and project cohesion
- Actively participated in business trips for customer visits, contributing insights and strengthening client relationships through direct engagement, which led to multi-million dollar sales opportunities

Stryker Corporation – Medical Division, Acute Care Portage, MI
R&D Software Engineering Intern May 2021 – Aug. 2022

- Utilized machine vision and machine learning techniques with Intel RealSense Depth Cameras in C#, C++, and Python3 to develop a skeletal tracking and image processing embedded application for hospital bed
- Processed depth, skeletal structure, and obfuscated patient and surroundings in real time to collect data

UofM Computer Aided Engineering Network Ann Arbor, MI
CAEN Help Desk Consultant January 2021 – May 2023

- Provided team oriented elevated support for CAEN engineering services, including computer labs, classroom technology, remote access, and software to improve student experience
- Performed data analysis, software testing and development, and python bash shell scripting as daily maintenance
- Maintained ticket queue and escalated tickets to appropriate services and teams to regulate workflow

RESEARCH

Investigating Neural and Behavioral Aspects of Debugging Across Reading Ability: Employed fNIRS technology to conduct a comprehensive investigation into the neural correlates and behavioral outcomes of debugging in software engineering. Addtionally investigated the effect of varying levels of reading ability and morphologically changed identifier names. Developed a detailed model illustrating the neural processes involved in each stage of debugging. Submitted findings for publication to the **Transactions in Software Engineering** Journal.

ACTIVITIES

University of Michigan Ann Arbor, MI / Dominican Republic
UofM M-HEAL (Michigan Engineered for All Lives) Sept. 2021 – Dec 2022

- Project PeriOperative: Systematically engineer an underbody warming mattress to redistribute body heat for patients in the Dominican Republic who are unable to regulate their own body heat under anesthetic surgery
- Explored PID control and non-invasive infrared temperature reading methods, creating real time feedback
- Successfully brought signs of perioperative (during surgery) hypothermia down 85%