

YIFEI SUN

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EDUCATION

Northeastern University

2023/09 - 2024/12

M.Sc. in Computer Science

Boston, MA, USA

Attended: PyCon 2023 (in-person), WWDC 2023 (in-person).

Thesis: TBD. Advisor: TBD.

University of Utah

2019/08 - 2023/05

B.Sc. in Computer Science

Salt Lake City, UT, USA

Attended: CppCon 2021 (in-person), PyCon 2022 (in-person), DockerCon 2022 (virtual), HackMIT 2022 (in-person).

Thesis: "System and Methods to Determine ME/CFS & Long COVID Disease Severity Using Wearable Sensor & Survey Data". Advisor: Shad Roundy. Co-advisor: Tucker Hermans.

EXPERIENCE

Research Assistant, University of Utah

2021/08 - 2023/05

- Joint research project, PI: Suzanne Vernon, advisor: Shad Roundy, co-advisor: Tucker Hermans. In collaboration with the Bateman Horne Center's clinical research team, we developed and managed a new data collection infrastructure.
- The infrastructure is built on 5000+ lines of Nix, Python, Go and C++, aggregating 100+ IMUs, 20+ single-board computers, and 3+ high-performance servers. We collected terabyte-level motion data, and applied sensor fusion, motion analysis, and machine learning techniques on collected time-series data and survey data. We are planning to use our research outcome to propose to medical regulators as possible standardized diagnostic procedures and severity categorization methods for ME/CFS, Long COVID, and other related medical syndromes.

System Administrator, University of Utah

2019/12 - 2020/09

- Enterprise system administration, managed 1000+ university-owned Apple devices (Macs, iPads, Apple TVs, etc.).
- Utilized Jamf Pro, Radmin, and Apple School Manager to perform day-to-day MDM tasks. Created multiple automation tools to perform unattended on-boarding, off-boarding, and package distributions.

Intern, DJI

2018/07 - 2018/08

- Competitive robotic system design/modeling, embedded system programming, control system programming, and computer vision. Developed path planning and task scheduling algorithms for predefined workflow.
- Utilized STM32F4 platform to built out a robotic system with wireless image transmission, image recognition, automated reasoning, and task scheduling capabilities, following predefined rules sets to complete tasks.

OSS CONTRIBUTION

NixPkgs

github.com/nixos/nixpkgs

- Nix Packages collection, 1000+ commits per month.
- NixPkgs maintainer, Darwin maintainer. 10+ merged PR, 10+ reviewed PR.

MetaProcessor

github.com/metaprocessor/metaprocessor

- Contributor, code owner. Package published to PyPI.
- Data collection pipeline developed for MblentLab MetaMotion series IMUs. Collected terabyte-level IMU data in a joint research project in collaboration with the Bateman Horne Center.