Andrew Vernier

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SUMMARY

Result driven software engineer experienced in developing user interfaces and object-oriented programming. Passionate about creating intuitive and powerful user experiences. Seeking a collaborative team where I will be challenged by technical problems, learn best practices, and positively impact the lives of others.

EXPERIENCE

Microsoft | *Software Engineer* | Redmond, WA   Jan. 2021 – present
- Redesigned team's end to end UX test project to increase reliability and maintainability through statelessness and object-oriented paradigms such as abstraction, encapsulation, and polymorphism.
- Implementing new features for service's UX and RESTful API via test-driven development.
- Improving team's onboarding experience by developing an on-call training program and increasing internal documentation.

Amazon.com | *Software Development Engineer Intern* | Seattle, WA   May – Jul. 2020
- Designed large scale audit tool to track historical data to allow users to easily query and visualize changes to the data.
- Enabled continuous deployment of tool by leveraging industry leading DevOps and testing practices.
- Applied AWS cloud computing technologies to handle high throughput traffic. The tool is currently handling over 500 transactions per second.

Garmin International | *Software Engineer Intern* | Olathe, KS   May – Aug. 2019
- Developed graphical representations of in-activity metrics for use on multiple smartwatch devices.
- Implemented privacy mode to hide GPS data from external use in order to comply with military regulations while still allowing all on-device features to remain intact for best user experience.

Garmin International | *Software Engineer Intern* | Novi, MI   Apr. – Aug. 2018
- Designed framework for automated GUI testing of automotive navigation application via simulating interactions between the application and the client's API.

Crowds and Machines Lab | *Researcher* | Ann Arbor, MI   Jan. 2019 – May 2020
- Conceptualized metrics for measuring entanglement of conversations to prove effectiveness of machine learning to disentangle conversations in a new domain using minimal human effort.
- Achieved 30% increase in accuracy of image annotation tool that recreates 3D scenes from 2D images for training autonomous vehicles by improving user interface to lessen cognitive load on users.
- Fabricated a test harness for guiding design of generalizable image annotation tools and testbeds and facilitating the verification of such tools; work was published and presented at UIST 2019.

LEADERSHIP

University of Michigan | *Graduate Student Instructor – Web Systems* | Ann Arbor, MI   Aug. 2020 – Dec. 2020
- Teaching students web development concepts and mechanisms for scaling such as AWS technologies.
- Coordinating logistics for exams and lab quizzes for new remote learning settings.

Michigan Mars Rover Team | *Software Technical Advisor* | Ann Arbor, MI   Jun. 2019 – Dec. 2020
- Utilized GitHub workflow tools to enhance project management and aid migration to remote work.
- Taught general and team specific software topics via one-on-one mentoring and group presentations such as Git, state machines, and our custom build system.
- Directed team's competition strategy and made high pressure decisions during timed autonomy task.

EDUCATION

University of Michigan   Ann Arbor, MI
Master of Science in Engineering – Computer Science and Engineering   Jan. – Dec. 2020
Bachelor of Science in Engineering – Computer Science   Sep. 2016 – Dec. 2019
   Minor in Multidisciplinary Design

SKILLS

Languages: TypeScript/JavaScript, C++/C, Python, Java, HTML, CSS, C#; *Frameworks/Libraries:* React, Vue, Knockout, Flask; *Tools:* Git, Latex