Katharine (Katie) Bacher

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Education

Massachusetts Institute of Technology (MIT)   Cambridge, MA
Candidate for Masters of Engineering in CS with a Concentration in Human-Computer Interaction   June 2021
Bachelor of Science in Electrical Engineering and Computer Science   May 2020
GPA: 5.0/5.0
Relevant Coursework: Interactive Data Visualization, Intelligent Multimodal User Interfaces, Engineering Interactive Technologies, Artificial Intelligence, Algorithms, Design and Construction of Web Applications, Machine Learning, Computational Structures, Interconnected Embedded Systems, Advanced Interactions

Work Experience and Research

MIT Visualization Group (CSAIL)   Cambridge, MA
Graduate Researcher   Sept 2020 – Present
- Developing a web tool to create interactive data visualizations that does not require users to know code
- Will write and present thesis on my data visualization research

Peloton Interactive, Inc.   New York, NY (remote)
Full Stack Web Intern   Summer 2020
- Wrote code to generate PDF invoices for customers linked through a React frontend on the One Peloton website
- Worked with PostgreSQL database and Python backend to create data models and populate Jinja template

MIT Media Lab   Cambridge, MA
Undergraduate Researcher   Sept 2019 – March 2020
- Developed mobile app to read attention and focus data from a wearable device
- Designed visualizations that allowed users to view collected data and learn about their cognitive habits

Apple, Inc.   Cupertino, CA
Touch and Sensing Intern   Summer 2019
- Designed, built, and tested a prototype solution to measure capacitive coupling on an ungrounded device
- Ran simulations and experiments to inform design requirements in collaboration with Product Design team
- Designed PCB schematic, programmed STM32 Microcontroller, and wrote scripts to fully automate device

MIT Computer Science and Artificial Intelligence Lab (CSAIL)   Cambridge, MA
Undergraduate Researcher   June 2017 – May 2019
- Led design, development, and testing of large-scale, reconfigurable soft robot module
- Implemented low-level controls and designed the pneumatic circuitry, actuators, and sensor systems

Schneider Electric   Andover, MA
Emerging Technology Software Engineering Intern   Summer 2018
- Researched and presented information on blockchain technology to multiple corporate levels
- Conceived, designed, coded, and presented a new application of blockchain for Schneider's Microgrid

Skills

Python, Javascript, React, HTML, Node.js, Java, C++, C, Arduino, Processing, MATLAB, CAD, ROS, Blockchain

Activities and Achievements

- Academic All-America Woman of the Year   2020
- Siebel Scholar Fellowship, Class of 2020   2019
- Tau Beta Pi and Eta Kappa Nu Honor Societies   2019
- Varsity Track and Cross Country — Team Captain and mentor, two-time All-American   2016-Present