

# Meghan Clark

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INTERESTS	Observability, Monitoring, Wireless Networks, Microservices, Internet of Things, Edge Computing, 5G, Mixed Reality, User Experience
EDUCATION	<b>PhD in Computer Science</b> , University of California, Berkeley 2021 <b>Masters in Computer Science and Engineering</b> , University of Michigan 2017 <b>Bachelor of Science in Computer Science</b> , George Mason University 2011
SELECTED PROJECTS	<b>Lead Developer and Researcher</b> , XRShark (demo video) 2019–present Designed and developed real-time, real-space visualization of wireless network traffic for viewing in mixed reality headsets. Unity visualizer has MQTT backend. Supports WiFi and OpenThread mesh sensor networks. Received three-year DARPA special project funding (\$250,000) to continue development. <b>Lead Developer and Researcher</b> , ARticate 2020–2021 Designed and developed augmented reality Android app to help users discover smart home functionality and learn how to invoke it using natural language with an intelligent assistant. Led formal user evaluations, published results in ACM IMWUT 2022. <b>Lead Developer and Evangelist</b> , Virtual Shared Living 2015 Identified an overlooked class of smart home applications, and made a case for why home-to-home networking was potentially a killer app for the IoT. I prototyped a provocative telepresence application to derive user requirements and identify open engineering challenges. I presented this vision to many industry partners, including Amazon Lab 126 and Mozilla Connected Devices group. <b>Lead Developer</b> , lifxlan Python library (github - 450+ stars) 2015–present Designed and developed popular open source Python library to communicate with LIFX brand wireless light bulbs by implementing UDP-based networking protocol. Available on <a href="#">Github</a> and <a href="#">PyPi</a> . <b>Founder and Chair</b> , CS KickStart Jan–Sept 2016 Led a five-person team for nine months to create and run a one-week summer program for incoming freshmen women to learn about computer science and programming. Chair duties included fundraising, recruiting the leadership team, facilitating meetings, objective setting, risk management, curriculum development, marketing, instruction, program evaluation, and presentations to stakeholders.
EMPLOYMENT	<b>Postdoctoral Scholar</b> , UC Berkeley 2021-2022 Lead the XRShark project and mentored computer science PhD students. <b>NSF Graduate Research Fellow</b> , National Science Foundation 2014–2017 \$102,000 funding plus three years of tuition for research on energy-efficient buildings. <b>Lab Instructor - Embedded Systems</b> , UC Berkeley Fall 2017 Lab instructor for EECS 149/249A embedded systems course. Ran 3-4 labs a week, developed project management curriculum, and advised student projects. Received campus Outstanding GSI Award (\$250). <b>Software Engineer</b> , Oakwood Controls Jan–June 2012 R&D work for the U.S Army’s Night Vision and Electronic Sensors Directorate (NVESD) on automatic discovery, configuration, and control of heterogeneous sensor networks.
SKILLS	<b>Programming</b> Python, C, C#, Unity, Javascript, Node.js, Terraform, Ansible, Kubernetes, MQTT, Java, Erlang, SQL, Mongo, Git, Raspberry Pi, Arduino, Linux, Android, Keras <b>Fabrication</b> PCB design (Eagle), soldering, sewing, G-code, CNC and manual vertical mill, lathe, drill press, bandsaw, laser cutter, welding <b>User Experience</b> Usability testing, Mechanical Turk studies, interviews, questionnaires, iterative design <b>Project Management</b> Fundraising, budgeting, external presentations, internal consensus building, risk management, communicating priorities, establishing milestones, evaluating success