Sahar Mehrpour

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Education

George Mason University – *PhD in Computer Science*	*Summer 2024*
University of Manitoba, Canada – *MSc in Computer Science*	*Summer 2016*
Sharif University of Technology, Iran – *MSc and BSc in Computer Science*	

Experience

Research Assistant   *Fairfax, VA*
George Mason University   *May 2017 - Nov 2024*

- Participated in the NSF I-Corps program, gaining skills in market research, customer discovery, and product impact assessment.
- Researched and designed tools for working with design decisions, along with designing new user interfaces that enable users to document design rules without requiring special skills.
- Developed tools –built as IDE plugins (IntelliJ and VSCode) and a web app– for finding, documenting, and checking design decisions against code.
- Conducted several user studies and interviews to evaluate the tools.
- Mentored high school students, undergrads, and graduate students in conducting research and software development.
- Technologies: JavaScript, TypeScript, Java, React.js, NodeJS, WebSocket, Bootstrap, Redux.js, CSS, IntelliJ plugin, VS Code plugin

Software Engineer Intern   *Remote, US*
Google   *June 2023 - Sep 2023*

- Designed and developed a user-friendly visualization for log data from the Google Search Generative AI tool.
- Addressed the need for simplified tools to analyze user behavior without technical complexity.
- Technologies: TypeScript, Golang, React.js

Software Engineer Intern   *Remote, US*
Google   *Sep 2022 - Dec 2022*

- Contributed to developing a Chrome extension to assist people with cognitive impairments in reading and understanding text, enhancing it with features like labels and phrase highlighting during read-aloud.
- Collaborated with the accessibility group on UX and worked with an ML team to integrate a TFLite model for phrase detection.
- Technologies: TypeScript, Python, C++, TensorFlow-TFLite, Chrome Extension, WebAssembly

Research Assistant   *Salt Lake City, UT*
University of Utah   *Jan 2017 - May 2017*

- Created clinical data visualizations to aid medical workers in prescribing treatments based on similar patients.
- Technologies: TypeScript, Python, JavaScript, D3.js, Phovea Framework

Skills

- Problem Solving, Software Tools, Software Engineering, Front-end development, IDE plugins, Mentoring, Algorithms, Research, User Studies, Visualization, Algorithms
- *Programming Languages:* JavaScript, TypeScript, Python, Golang (familiar), C++ (familiar)
- *Libraries and Frameworks:* Node.js, React.js, Redux.js, WebSocket, Bootstrap, Testing libraries (Jasmine, Jest, Mocha, Sinon), IntelliJ Plugin, VS Code Plugin

Selected Publications

- **Mehrpour**, Mansi, Slaughter, LaToza. *Learning Design Rules from Code*, 2024.
- **Mehrpour**, LaToza. *A survey of tool support for working with design decisions*, 2023.
- **Mehrpour**, LaToza. *Can static analysis tools find more defects*, 2022.
- **Mehrpour**, LaToza. *Programming Tools for Working with Design Decisions in Code*, 2021.
- **Mehrpour**, LaToza, Sarvari. *RulePad: Interactive of Authoring Checkable Design Rules*, 2020.
- **Mehrpour**, LaToza, Kindi. *Active Documentation: Helping Developers Follow Design Decisions*, 2019.