## Sheida Rashidi Ardestani

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#### **EDUCATION** -

Macalester College, St. Paul, MN

September 2020 - December 2023

Bachelor of Arts in Computer Science with a Minor in Psychology

GPA: 3.5

Study Abroad: University of Bradford, Bradford, United Kingdom

**Relevant Coursework:** Software Design & Development, Introduction to Artificial Intelligence, Human-Computer Interaction, Algorithm Design & Analysis, Mobile Application Development, Internet of Computing, Data Structures, Object-Oriented Programming, Internet of Things, Cyber Security, Cognitive Psychology, Social Psychology, Research in Psychology, Developmental Psychology, Psychology of Gender

Methodist University, Fayetteville, NC

August 2019 - May 2020

Global Studies, Transferred out

GPA: 3.7

## Li Po Chun United World College (UWC LPC), Hong Kong

September 2017 - May 2019

International Baccalaureate Diploma Program

#### **Professional Certificates**

- Google Data Analytics Professional Certificate
- Google UX Design Professional Certificate
- Hack the Gap Data Analytics Professional Certificate

#### RESEARCH EXPERIENCES -

## Artificial Intelligence Research Assistant, Macalester College, MN

May 2024 - Present

- Conduct research under the supervision of Dr. Susan Fox at Macalester college
- Enhance the accuracy of a sign language AI system, achieving higher recognition rates through optimized training processes that reduced both data size and time requirements.
- Optimize the system for compatibility with everyday personal devices, improving accessibility and usability for a broader audience.
- Research and implement transfer learning methods to classify images based on geographic origin, enabling more context-aware and precise applications in computer vision.

## Human-Computer Interaction Research Assistant, Macalester College, MN

February 2024 - May 2024

- Conducted research under the supervision of Dr. Lauren Milne at Macalester college
- Pioneered alternative interaction methods for computer programs, focusing on enhancing accessibility for users with disabilities.
- Conducted in-depth research on tangible programming methods, proposing innovative tools and interfaces to make programming education more inclusive and effective.
- Designed and developed tangible physical models to test and refine innovative interaction solutions for inclusive applications.

# Independent Research Project: Psychology of Friendships and Matching Algorithms, Macalester College, MN

Fall 2023

- Conducted a semester-long research project integrating psychological principles of friendships with algorithmic approaches to develop an effective matching algorithm.
- Performed extensive literature reviews and interviews to gather qualitative and quantitative data on group dynamics and compatibility.
- Explored, implemented, and analyzed matching algorithms, developing a model capable of forming cohesive and compatible groups, resulting in a comprehensive research paper and a functional prototype.

## **Honors, Grants and Awards**

- First Place Winner, Hack the Gap Hackathon | 2024
- MacNest Summer Internship Grant | 2023
- Certificate of Continuing Education | 2023
- Study Abroad Travel Grant for International Student Exchange Programs (ISEP) at the University of Bradford, United Kingdom | 2022
- Macalester Summer Internship Grant (MSIG) | 2022
- Kofi Annan Scholarship | 2020
- Davis United World College Scholarship | 2020
- Dean's List | 2020

#### **WORK EXPERIENCES**

## Brain-Computer Interface Intern, Blackrock Neurotech, UT

January 2025 - Present

- Design and optimize user interaction models for brain-computer interface (BCI) systems, focusing on usability and accessibility.
- Conduct user research and usability testing to refine interaction models, enhancing the user experience for BCI technologies.
- Collaborate with engineers and researchers to integrate design solutions seamlessly into cutting-edge neurotechnology applications.

#### Software Developer, Web Developer, UX Designer and Marketing Intern, Easy EMDR, MN

June 2023 - August 2023

- Developed, designed, and implemented new EMDR stimulant elements and features for the Easy EMDR web application.
- Identified and resolved software bugs and issues within the platform, ensuring a smoother user experience system functionality.
- Revitalized and optimized social media platforms to increase brand visibility and engagement.
- Created a comprehensive brand kit to maintain a consistent and appealing online identity across all social media platforms.

## Software and Web Developer and UX Designer Intern, GogyUp Inc., MN

June 2022 - August 2022

- Conducted independent research on user experience and accessibility in tech specially for users with vision impairments to make GogyUp Reader more accessible and accommodating.
- Developed a Progressive Web Application prototype of the GogyUp Reader app with enhanced interface.
- Designed a new user interface for GogyUp Reader, making a strong emphasis on intuitiveness, accessibility, and user-friendliness.

## Teaching Assistant for Algorithm Design & Analysis and Python, Macalester College, MN

January 2022 - May 2023

- · Conducted office hours and provided individualized assistance to students for their coursework and questions.
- Guided students with no prior coding experience in Python language.
- · Assisted the professor with grading students' homework and quizzes efficiently and accurately.

## PRESENTATIONS AND CONFERENCES

- Minnebar (2024). Saint Paul, MN
- *Gesture Intelligence* (2023). Presented at the Macalester Mathematics, Statistics, and Computer Science (MSCS) Capstone Showcase, Macalester College.
- Designing Accessible virtual EMDR Services (2023). Presented at the Mac Fest Summer Showcase, Macalester College.
- Google I/O Connect (2023). Miami, FL
- Developing Accessible Technology (2022). Presented at the Mac Fest Summer Showcase, Macalester College.

#### OTHER EMPLOYMENT AND INVOLVEMENT

## Google Women Techmakers Ambassador & Student Developer Club Leader, Macalester College, MN

July 2022 - Present

- Organized and led events promoting women in tech, including hackathons, meetups, and workshops aimed at empowering and supporting underrepresented groups in technology.
- Delivered public talks and presentations to inspire and educate students about opportunities and challenges for women in technology.
- Built partnerships with local organizations to facilitate project-building activities, fostering a peer-to-peer learning environment for students to develop technical and leadership skills.

### Resident Assistant, Macalester College, MN

January 2022 - May 2023

- Oversaw a community of 33+ students within dormitory-style living spaces, serving as the first point of contact for conflict resolution and support.
- Executed administrative responsibilities, including budget management, maintenance coordination, incident reporting, and room transfers to maintain a safe and organized environment.
- Organized social and educational events, enhancing community relationships and fostering a sense of belonging among residents.

## Student Government Diversity and Inclusion Officer, Macalester College, MN

November 2021 - May 2022

- Led initiatives to promote equity, diversity, and inclusion by collaborating with students, faculty, and other committees to address campus-wide cultural and social issues.
- Led a committee of four students to plan and arrange the Macalester Cultural Evening annual celebration for the student body.
- Worked closely with the administration to implement inclusive policies and foster a campus culture that values diversity.

## Digital Resource Center Lab Assistant, Macalester College, MN

August 2020 - January 2024

- Gained expertise in software and digital technologies, including Adobe Creative Suite, WordPress, 3D Printing, and other multimedia
  tools, to assist students with creative projects.
- Provided hands-on support for students working on design, video editing, and web development projects, while maintaining and troubleshooting tech equipment.
- Managed the center's inventory, ensuring the availability of hardware and digital resources, and trained peers on using specialized software and tools

- Evaluated applications and conducted private interviews and group assessments as part of the candidate selection team to identify and recruit the next generation of Iranian UWC students.
- Managed official social media platforms, including Instagram and Facebook, increasing outreach and engagement to enhance the promotion of the UWC program across a broader audience.

#### **SKILLS**

- Programming: Python, JavaScript, Java, HTML, CSS, SQL, Swift, React, React Native, R
- Software: Power BI, Android Studio, Xcode, WordPress, Figma, Adobe Creative Cloud Applications, Microsoft Office Programs
- Languages: Fluent in English and Persian; Beginner in Spanish

#### RELEVANT PROJECTS -

## Sign Language Recognizer (Python, Media Pipe, TensorFlow/Keras, OpenCV)

- Developed an AI-driven system capable of live recognition and interpretation of American Sign Language (ASL) using MediaPipe Studio for hand tracking and pose estimation.
- Designed and trained custom machine learning models with TensorFlow/Keras, incorporating data preprocessing pipelines for improved accuracy and efficiency.
- Utilized OpenCV to create a seamless real-time user interface for video input and ASL gesture recognition.
- Collaborated in a team of three, dividing responsibilities between research, algorithm development, and user experience design to deliver an accessible and reliable application.

# Rate Your Landlord Website (React, Bootstrap, JavaScript, SQL)

- Led the front-end development, building a dynamic and responsive interface using React and Bootstrap, ensuring compatibility across
  devices and browsers.
- Designed intuitive navigation and an accessible layout for users to submit and review rental property feedback.
- Worked with backend developers on database integration using SQL, ensuring data persistence and secure submission processes.
- Implemented front-end form validation and live updates to improve user experience and data accuracy.

## **User Interface Redesign for TouchChat Application**

- Redesigned the interface of the TouchChat AAC app, catering to individuals with communication impairments, in a team of four.
- Conducted user interviews and usability testing to identify pain points and opportunities for improvement in the app's design.
- Implemented accessible design principles to create intuitive layouts, personalized feature recommendations, and improved navigation.
- Produced detailed wireframes and mockups using design tools, ensuring a user-centered approach throughout the redesign process

## Circle Community Building App (React Native, Firebase, NativeWind)

- Developed a cross-platform mobile app using React Native and Expo to connect users to groups based on shared interests and personality traits, fostering new friendships and social connections.
- Leveraged Firebase for real-time database functionality and authentication, ensuring a seamless and secure user experience.
- Implemented responsive design and interactive features using NativeWind to enhance user engagement and accessibility.

## ChromaVR (A-Frame, JavaScript, HTML)

- Researched and collected data about the impact of colors on user emotions and behaviors by designing an immersive and interactive virtual reality (VR) game.
- Designed and developed immersive VR application using the A-Frame framework for VR environments.
- Worked in a team of four, balancing roles between environment design, user interaction scripting, and data Collection.

# Glow Girl: Women's Health, First Place Winner at Hack the Gap Hackathon (React, HTML CSS, JavaScript, Bootstrap)

- Developed a progressive web application focused on women's health, designed to provide secure and anonymous access to information in communities where such topics are considered taboo.
- Collaborated with a team to create a user-friendly, privacy-focused interface, ensuring accessibility and inclusivity.
- Integrated features for anonymity and confidentiality, fostering a safe space for users to seek health-related information and resources.

#### Tetris Puzzle iOS Application (Swift, iOS, SpriteKit)

- Designed and developed a modern Tetris-inspired puzzle game using Swift and SpriteKit, Apple's game development framework.
- Created an engaging outer space theme with dynamic animations and interactive elements to reimagine the classic Tetris experience.
- Led the main user interface (UI) and user experience (UX) design, focusing on intuitive controls and responsive and vibrant graphics.
- Collaborated with a team of three students to implement game logic, scoring algorithms, and adaptive levels for enhanced gameplay.

# Online Portfolio (React, JavaScript, HTML, CSS, Bootstrap)

- Built a responsive, multi-page portfolio to showcase professional and academic achievements using React for efficient rendering
- Integrated Bootstrap for consistent styling and CSS to ensure compatibility across mobile, tablet, and desktop devices.
- Emphasized accessibility features and a responsive user interface design to ensure compatibility across diverse devices.