

Sajad Sarlaki

Calgary, AB, Canada

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Research Interests

Assistive technologies; human–computer interaction (HCI); accessibility and autism support technologies; adaptive learning systems; software systems and performance; applied machine learning for education and health.

Education

University of Calgary, Calgary, Canada

M.Sc. in Electrical and Software Engineering (Thesis-based)

January 2025 – Present

- Research group: ETHEREAL Research Group
- Focus: Designing and evaluating assistive typing and communication systems for nonspeaking autistic individuals using adaptive interfaces, computer vision, and AI-driven feedback

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

Bachelor of Science (B.Sc.) in Computer Engineering

September 2017 – March 2022

- GPA: 17/20

Teaching Experience

University of Calgary, Calgary, Canada

Graduate Teaching Assistant

January 2025 – Present

- ENEL 353 – Circuit Design
- ENCM 369 – Computer Organizations
- ENSF 619 – Full-Stack Development
- SENG 533 – Software Performance Evaluation
- SENG 438 – Software Quality, Reliability, and Testing
- Led tutorials and laboratory sessions; assisted students with technical problem-solving; graded assignments, labs, projects, and presentations

Amirkabir University of Technology, Tehran, Iran

Teaching Assistant

2019 – 2021

- Advanced Programming
- Signals and Systems
- Computational Intelligence

- Designed and graded assignments and quizzes; provided academic and technical support

Publications & Scholarly Outputs

- **Co-Designing Assistive Technologies with Nonspeaking Autistic Collaborators.** *ACM Designing Interactive Systems (DIS)* — Submitted.
- **Insights from the Inside: Ethical Co-Design of Technology for and with Nonspeaking Autistic People.** *INSAR Annual Meeting* — Abstract accepted (poster presentation).
- **When Speech Isn't the Default: Co-Designing Communication Access and Shared Authority in Higher Education.** *CUNY Conference on Human Information Interaction and Retrieval (CHIIR/CUNY)* — Abstract submitted.

Research & Professional Experience

BAYAN, Tehran, Iran

Front-End Developer

May 2022 – 2024

- Modernized legacy front-end codebases
- Developed mailbox and administrative interfaces
- Worked with SMTP, POP3, IMAP protocols
- Technologies: React, Redux, Django, Redis

UTOPIA, Tehran, Iran

Co-Founder & Developer

August 2018 – April 2022

- Co-designed and implemented an agricultural technology platform
- Developed web and mobile applications
- Mentored undergraduate interns in modern front-end practices

Projects (Selected)

Adaptive Typing and Communication Support System (Ongoing)

Research-driven assistive typing platform integrating a tablet UI, custom RGB keyboard cues, audio feedback, and computer vision-based interaction. Project overview

Aragorn-js

JavaScript library for creative and educational 2D content using WebGL (B.Sc. final project). GitHub repository

Project Collections

projects spanning computational intelligence, data mining, networks, databases, and machine learning. GitHub projects: [1] [2] [3] [4] [5]

Skills

Programming & Software Development: JavaScript, Python, Java, Node.js, Express

Web & Mobile Development: React, React Native, HTML5, CSS3, SCSS/Sass, Redux

Systems & Tools: Git, Webpack, REST APIs, Redis, Django

Design & Prototyping: Figma

Methodologies: Agile/Scrum, responsive design, software testing fundamentals

Service, Leadership & Community Engagement

Community-Based & Participatory Engagement

- Volunteer participant in the University of Calgary Beast Mode program, supporting inclusive wellness, regulation, and peer engagement
- Organized and facilitated accessible co-design meetings and informal community social sessions

Academic, Technical & Entrepreneurial Leadership

- Co-founder of an early-stage technology startup (UTOPIA)
- Organized technical workshops and knowledge-sharing sessions
- Mentored undergraduate interns in industry and academic settings
- Academic and technical service through graduate teaching assistant roles and open-source contributions

Languages

- English (Professional)
- Persian (Native)