

Education

- M.A. Educational Technology** — Concordia University, Canada 2022 - 2025
- Thesis: [Prose](#) – reimagining the academic article as a digital-native, interactive experience.
- B.S. Computer Science** — Habib University, Pakistan 2017 - 2021

Skills

Languages: TypeScript, JavaScript, Python, C#, Java
Frameworks: Next.js, React, React Native, Express, Django, Prisma, Tailwind, Unity
Infrastructure: AWS (EC2, RDS, S3, SES, IAM), PostgreSQL, MySQL, Linux, nginx, Git, REST, WebSockets

Work Experience

- Research Lead – Materializing Design** June 2025 – Present
Concordia University, Montreal CA
- Lead engineer of a SSHRC-funded research group on Game Design.
 - I build the tools and technical infrastructure for the group.
 - Productizing a research method for traceable design: building tools that blend Git-based version control with reflective design practice.
 - Set the group's technical direction and mentor student researchers across projects.
- Technical Lead - Software Engineer** Jan 2022 – Jan 2024
Zelospace, London, UK
- Co-founded a social discovery startup connecting university students through brand-sponsored competitions; owned the product end to end, from user research and design to launch on the App Store and Play Store.
 - Built the iOS and Android apps in React Native; architected the backend in Django/Python (migrated from PHP/Laravel), deployed on AWS (EC2, RDS, S3, SES, IAM).
 - Reached product-market fit: grew to 1,000+ active users at UCL in the first year, expanding organically to additional London universities.
 - Ran competitions with brand partners including Razer and Hard Rock Cafe, validating a sponsorship revenue model.
 - Hired and led a team of 5 engineers working across the stack.
- Software Engineer** June 2022 – May 2025
Milieux Institute, Montreal CA
- Shipped 11 research and production projects across web, mobile, and games as developer, designer, and technical lead. Highlights:
 - **The Jagged Time** — Designed and built the digital version of a physical boardgame. [link](#)
 - **SunBlock** — built an autonomous solar-powered game server end to end: solar hardware, Python systems software, Java Minecraft mod, live React dashboard. Open-source maintainer; featured on CTV News. [link](#) - [GitHub](#)
 - **Life on the Edge** — built a game analytics engine turning gameplay data into measurable learning outcomes for a SSHRC study (C#, Unity, Snowflake). [link](#)
 - **PoEMM** — revived 8 legacy iOS interactive artworks (Objective-C) and re-shipped them to the App Store. [link](#)
 - **Artreach** — sole engineer for a production platform connecting university research to the public (Next.js, TypeScript, Prisma, Better Auth, MySQL, S3).

Software Engineer

May 2021 – Dec 2021

Folio3, Karachi PK

- Fixed the socket-connection failure breaking Visualix, a 3D indoor mapping product — the technical blocker holding up the company's acquisition (C#, Unity).
- Built features for a real-time critical-alerts messaging system (C++, Linux, RabbitMQ); prototyped e-commerce apps in React Native.

Select Publications

- Khaled, R., Sinervo, K., **Ali, M.S.**, et al. "Reflective Surfaces: Experimenting with Playful, Playable Publication Formats." ACM DIS '24 Companion.
- McDonald, R., **Ali, M.S.**, Saggio, Q., Simon, B. "Playing With Power: Energy Infrastructure and Solar Minecraft." CGSA 2025.