Samuel Potter

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EDUCATION

University of Rochester   Aug 2021 – May 2025
Bachelor of Science in Computer Science   *Rochester, NY*
- **Relevant coursework:** Software Development, Programming Languages, Computer Organization, Deep Learning
- **Awarded:** Outstanding Undergraduate Researcher Award Honorable Mention, Computing Research Association

SKILLS

Languages & Databases: Typescript, Python, HTML/CSS, Java, C#, C, SQL, Swift, Postgres, ElasticSearch
Frameworks & Runtimes: Node.js, React, Next.js, Flask, Sanic, Tailwind, SwiftUI
DevOps & Tools: Git, Claude Code, Docker, Tailscale, AWS, Google Cloud, Neovim

EXPERIENCE

Software Developer   Mar 2025 – Present
Seize Enterprises   *Remote*
- Expanded access to child Autism speech therapy in Saudi Arabia by building an AI diagnostic tool to augment human experts.
- Maintained deployments of full stack applications in NextJS on the Alibaba cloud.
- Led a gradual codebase migration from JavaScript to TypeScript, improving developer experience and reliability.
- Developed a PTSD screening tool, validated through a 16-participant soldier-clinician study and submitted to IVA 2026.

AI Engineer   Nov 2023 – Sep 2024
Saudi Authority for Data and Artificial Intelligence   *Remote*
- Designed an AI-powered chatbot tutoring system with personalized, adaptive, and multimodal capabilities.
- Premiered the system at the Global AI Summit 2024
- NDA – No further information available.

Research Assistant – Full Stack   June 2022 – Nov 2023
University of Rochester Human Computer Interaction Lab   *Rochester, NY*
- Developed and tested methods for synthetic data generation for hand tracking machine learning models using Unity (Hi5).
- Leveraged Unreal Engine 5 to develop a virtual AI chat system for education, job interview and conversation practice.
- Redesigned a bare, developer-only interface into a polished, accessible full-stack app for end users.
- Co-authored, published, and demoed the SAPIEN paper at the ACII 2023 Conference (see Publications).

PROJECTS

ThankYouEpicDB | *Next.js, Tailwind, Sanic, Postgres, ElasticSearch*   Present
- Designed and implemented an index of 8,000+ images and videos for a meme library, enabling semantic search.
- Integrated AI-based content analysis, syncing results in an ElasticSearch database to enable semantic search and retrieval.
- Developed front end website for querying the database using Next.js.

Salendar: DandyHacks 2023 | *Next.js, TypeScript, Python, Flask*   Nov 2023
- Developed a full-stack application with Next.js and Flask enabling automatic course schedule calendar setup.
- Utilized the Google Cloud and OpenAI API to streamline syllabus parsing and Google calender generation.

Spotify Song Predictor: CSC 240: Data Mining | *Python, Data Cleaning, Data Mining*   Apr 2023
- Performed data cleaning and feature selection on data from 30,000 songs over 15 attributes.
- Trained a Decision Tree Classifier and a Gradient-Boosted Tree Classifier in Python to classify songs as hits or flops.
- Developed a front-end to allow users to interact with and test our model's performance.
- Prepared and delivered a presentation on our results, winning 'best presentation of the day.'

PUBLICATIONS

M. Hasan, C. Ozel, S. Potter and E. Hoque, "SAPIEN: Affective Virtual Agents Powered by Large Language Models," in 2024 Conference on Neural Information Processing Systems.

Masum Hasan, Cengiz Ozel, Nina Long, Alexander Martin, Samuel Potter, Tariq Adnan, Sangwu Lee, Amir Zadeh and Ehsan Hoque, "Hi5: 2D Hand Pose Estimation with Zero Human Annotation," in 2023 11th International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW), Cambridge, MA, USA, 2023 pp. 1-3.