Samuel Potter

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Education

University of Rochester Rochester, NY

Bachelor of Science in Computer Science *Aug 2021 – May 2025*

Awards:

- (Nominated) Computing Research Association Outstanding Undergraduate Researcher Award
- Best Space-Themed App: DandyHacks 2021

Publications

M. Hasan, C. Ozel, S. Potter and E. Hoque, "SAPIEN: Affective Virtual Agents Powered by Large Language Models," in 2023 11th International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW), Cambridge, MA, USA, 2023 pp. 1-3.

Experience

Researcher | AI Engineer Nov 2023 – Sep 2024

Saudi Authority for Data and Artificial Intelligence *Remote*

- Co-developed KALEEM: a humanoid tutor that is personalized, adaptive, multimodal and available anytime, anywhere.
- The system was premiered at the Global AI Summit 2024 organized by the Kingdom of Saudi Arabia.
- NDA – No further information available.

Research Assistant 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.
- Leveraged GPT-4 and Unreal Engine 5 to develop a virtual chatbot for teaching, job interview and conversation practice.
- Created an interactive full stack website for the chatbot using Flask on Amazon Web Services.

Teaching Assistant Jan 2022 – June 2022

University of Rochester | CSC 171: Intro to CS with Java *Rochester, NY*

- Led two 75-minute workshops of 12 students each per week.
- Facilitated students to engage with course material and with each other in an interactive learning environment.
- Produced a final research project aimed at improving the CS learning experience through virtual online exercises.

Projects

ThankYouEpicDB | *Python, Next.js, Flask, ElasticSearch, React, SQL, Tailwind* Present

- Designed and implemented an index of 8,000+ images and videos for a 'meme' library, enabling semantic search.
- Integrated AI-based content analysis, storing results in an SQL database to enable seamless search and retrieval.
- Developed front end website for querying the database using Next.js and ElasticSearch.

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.'

Technical Skills

Languages: Java, Python, C, C#, SQL (Postgres), TypeScript, HTML/CSS, Swift

Frameworks: React, Node.js, Next.js, Flask, Tailwind, SwiftUI

Tools: Git, AWS, Google Cloud Platform, Neovim, Adobe Creative Suite, Unity, Unreal Engine 5, ElasticSearch