Shant Manoukian

248-533-8644 | shantrm@umich.edu | linkedin.com/in/shantrmanoukian | shantrm.github.io

EDUCATION

University of Michigan   Ann Arbor, MI
Bachelor of Science in Engineering, Computer Engineering   *Aug. 2023 – May 2027*
- Relevant Coursework: Data Structures and Algorithms, Embedded Systems, Computer Organization, Logic Design, Calculus I-III, Electronic Circuits, Systems and Signals
- Professional Involvement: KTP Professional Technology Fraternity, Armenian Students' Cultural Association

EMPLOYMENT

TalentNeuron, Software Engineering Intern   June 2025 – Aug. 2025
Remote
- Built a modular Python pipeline to assess TalentNeuron's skill extraction algorithm against ChatGPT across 4,000+ job postings, adding an additional 1000+ new terms to the database to improve skill extraction.
- Architected a batch-based OpenAI workflow that partitioned and submitted descriptions via the Batch API, standardized outputs, and consolidated structured data automatically.
- Integrated fuzzy string matching and REST API queries to cross-verify skills, applying Levenshtein distance metrics and autocomplete-based enrichment from internal TN services.
- Added caching mechanisms for efficient processing and fault resilience across thousands of API interactions.
- Produced detailed CSV reports and analytical dashboards quantifying exact, fuzzy, and semantic matches; presented findings and optimization insights to the Executive Team.

The Michigan Daily, Web Developer   Feb. 2025 – Present
Ann Arbor, MI
- Maintain and enhance web applications for The Michigan Daily, including platforms for special editions and internal newsroom utilities, employing modern web frameworks.
- Apply React.js, Svelte, SCSS, and Parcel to craft dynamic front-end experiences. Work with React Native for mobile.
- Partner with editorial, design, and business divisions to meet technical needs and enhance The Daily's online presence.

KTP, App Developer   Jul. 2025 – Aug. 2025
Ann Arbor, MI
- Contributed to the creation of KTP Life, a web app for scheduling coffee chats, tracking brother points, and managing events used by 100+ members of a professional technology fraternity.
- Engineered the front end with React.js, styling components via Material UI to deliver a responsive and intuitive interface.
- Collaborated with a UX designer in Figma to prototype a "KTP Superlatives" feature.

RELEVANT PROJECTS

Stock Market Simulator   Oct. 2024
- Devised an electronic stock exchange simulation in C++ leveraging priority queues and heaps to process and match buy/sell orders efficiently based on trader intent, price, and timestamps.
- Formulated algorithms to handle multiple input modes (trade list and pseudorandom), processing orders with median price calculation, trading logs, and participant summaries.

B-Side Landing Site — The Michigan Daily   Feb. 2025 - Apr. 2025
- Engineered an interactive React/TypeScript web application featuring a dynamic vinyl record interface that parses and displays 1000+ arts and culture articles from The Michigan Daily's B-Side section, organized by semester.
- Implemented custom scroll-based animations and state management to create a rotating vinyl UI that responds to user interaction, processing article metadata including titles, authors, dates, and images fetched from a CMS API.
- Deployed production-ready application using Vite bundling and modern web technologies, achieving 12,500+ unique views and serving as the primary portal for student journalism content discovery.

Four-Function Calculator on DE2-115 FPGA   Nov. 2024 - Dec. 2024
- Constructed a four-function calculator on the DE2-115 FPGA board, applying RTL design concepts and Verilog to perform addition, subtraction, multiplication, and division of 11-bit two's complement integers.
- Composed datapath and control logic modules, integrating adders/subtractors, multiplexers, and registers to ensure accurate computation. Utilized ModelSim for verification and debugging.

Discord Chat Retriever Bot   Jan. 2025
- Programmed a Discord bot using discord.py and asynchronous commands to fetch, embed, and randomize messages and images from server channels.
- Established persistent uptime hosting through a Flask-based keep-alive server and secure token handling with dotenv.
- Applied Python libraries (asyncio, numpy, bisect) for message sampling, achieving responsive retrieval for 10k+ messages.

SKILLS

C++, Python, Java, C#, TypeScript, HTML, JavaScript, React, Svelte, SCSS, Material UI, Vite, Flask, BeautifulSoup, Pandas, SQL, REST APIs, OpenAI API, Power BI, Git, Figma, ModelSim, Verilog, Dashboarding