Mudit Johar

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https://github.com/muditjohar3000

EDUCATION

University of Michigan — Ann Arbor, MI
Bachelor of Science in Computer Science (GPA: 3.7/4), Dean's Honor List — *Aug. 2022 – Dec 2025*

Skyline High School — Sammamish, WA
IB Diploma (GPA: 3.84/4), Math Club Director of Operations, Chess Club President — *Sep. 2018 – Jun 2022*

EXPERIENCE

Intern — Jun. 2024 – Aug 2024
Sogeti (Capgemini) — *Minneapolis, MN*
- Collaborated with team members in an agile scrum environment to efficiently clean and analyze over 20 million data points and tracked progress in Jira
- Developed four AI models (76%-95% accuracy) in Python to assess the influence of social determinants of health on population health in the Midwest
- Formulated 6 strategies for Health Plans to enhance customer care
- Presented cost-effective strategies about key social determinants of health to company leadership team and clients

Intern — Oct. 2019 – Dec 2019
Uplevel — *Seattle, WA*
- Improved company website's user satisfaction ratings by 24%
- Rerouted multiple hyperlinks for more user-friendly navigation
- Increased visual appeal of company website by changing pictures and locations of pictures
- Used HTML and CSS to create a mockup website for the company

PROJECTS

Michigan Data Science Team | *Python, TensorFlow, pandas, Git* — Sep 2022 – Present
- ∗ Developed a Python Pokémon game training algorithm with a 64% win rate, enabling Pokémon to select the best move based on opponent types and stats. The algorithm uses past data for unsupervised practice runs
- ∗ Designed an Artificial intelligence (AI) model with 73% accuracy that predicts College basketball (March Madness) outcomes with accuracy based on web scraped historical data analysis in Python
- ∗ Utilized sorting algorithms and web scraping to analyze and collect data before feeding it into the program

Motion Surfers | *HTML, Python, Tensorflow, pandas* — Sep 2023 – Sep 2023
- ∗ Utilized artificial intelligence to analyze user's real time movements and translate them into in-game actions in Subway Surfers.
- ∗ Received the Best Game Design Award at the Michigan Hackathon-16 in 2023.

SPARK Project Team | *QT, Linux* — Sep 2022 – Jul 2023
- ∗ Designed and engineered the display system for a high-performance electric motorcycle at UMich SPARK. This cutting-edge display not only enhances the racing experience but also provides crucial data for optimization and safety
- ∗ Developed a 4 variable GUI dashboard for the electric motorcycle to indicate speed, tire pressure, mileage, and battery utilization. The dashboard is made using Qt development framework

Google Recreation | *MapReduce, AWS, Python, BeautifulSoup* — Nov 2024 – Dec 2024
- ∗ Developed a scalable search engine that processes web pages using a pipeline of MapReduce programs, generating an inverted index for efficient information retrieval.
- ∗ Implemented a RESTful API Index server to serve search queries in JSON format and built a user-friendly search interface similar to Google/Bing using Flask.
- ∗ Integrated PageRank algorithm and TF-IDF ranking for over 7000 pages, leveraging parallel computing and service-oriented architecture to optimize search result relevance and system scalability.

TECHNICAL SKILLS

Programming Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, Matlab, Julia, R
Developer Tools: React, Node.js, Flask, Unity, AWS, Git, Docker, Linux, Visual Studio Code, PowerBI