

Milan Patel

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Education

University of Illinois, Urbana-Champaign

Champaign, IL

Master of Computer Science

Jan 2023 - December 2024

- **Courses Completed:** Cloud Computing Applications, Applied Machine Learning, Deep Learning for Healthcare, Computer Security II...
- **Courses In Progress:** Methods of Applied Statistics

University of California, Irvine

Irvine, CA

B.S. Computer Science

Sep 2018 - June 2022

- **Courses:** Information Retrieval, Artificial Intelligence, Database Management, Networks and Security, Design and Analysis of Algorithms, ...
- **Extracurriculars:** Member of Cyber @ UCI and competed in CCDC (Fall 2020)

Certifications

CompTIA Network+, CompTIA Security+

Work Experience

Edwards Lifesciences

Irvine, CA

Software Engineer - Python, JavaScript, SQL, C#

Jun 2023 - Present

- Design, develop, test, and optimize software solutions in an agile environment
- Develop **Machine Learning** (ML) algorithms for **medical image segmentation**, focusing on extracting heart valve measurements to **streamline the patient screening process**
- Enhanced an open-source DICOM viewer to support ultrasound data, **enabling advanced segmentation capabilities** to train ML models
- Conduct experiments to evaluate model performance, identify limitations, and propose improvements for ongoing R&D
- Supported the R&D BU's efforts by developing a **Python-based desktop app**, providing an intuitive GUI for analyzing stress-strain data in nitinol, a key material used in heart valve therapies
- Communicate effectively with cross-functional teams to gather project requirements and conduct demos to showcase progress

Tevora Business Solutions

Irvine, CA

Information Security Consultant

Jun 2021 - Sep 2021

- Analyzed documentation and system samples to determine if private businesses and service providers holding a contract with the U.S. government were meeting required security standards set by NIST 800-53 (FISMA).
- Authored a whitepaper and reported on the CMMC framework, which helps the U.S. Department of Defense measure an organization's capability to safeguard sensitive national security information and award contracts accordingly.

Projects

Spotify Playlist Cleaner

Oct 2022 - Dec 2022

React JS, AWS Amplify

- Developed and launched a **web app** that allows users to create clean versions of their Spotify playlists in a few clicks.
- Utilized six **Spotify API** endpoints to automate this process, **saving** users a substantial amount of **time**.
- Common use cases would be found in restaurants, stores, and social events.
- App has been **reviewed** and **approved by Spotify** and is now publicly available.

GPU Tracker

Feb 2022 - May 2022

Python, JavaScript, HTML, CSS, PostgreSQL, Heroku

- Developed and launched a **web app** that allows users to track GPUs and be notified when they are in stock.
- Created a web scraping service using **Selenium** to continuously query popular retailers.
- Implemented a secure authentication service using the **Passport.js** library.
- Architected a **PostgreSQL** database to store user credentials and GPUs being tracked by users.
- Used the **Gmail API** to automatically notify users when a GPU they are tracking is in stock.

Search Engine

Mar 2021 - May 2021

Python

- Built a **search engine** from the ground up capable of handling tens of thousands of documents with a query **response time under 300ms**.
- Designed an **inverted index**, mapping words, 2-grams, and 3-grams present in each document search space to the respective TF-IDF (Term Frequency-Inverse Document Frequency) value.
- Applied **Cosine similarity** to check how closely related documents were to an input query and rank them accordingly.

Skills

Languages Python, JavaScript, TypeScript, C++, C#, SQL, HTML, CSS

Miscellaneous Git, AWS, PostgreSQL, PyTorch, OpenCV, Node.js, Express.js, React, Angular, Selenium, Unity