ROHAN NAIR

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EDUCATION

UNIVERSITY OF TORONTO Toronto, ON
Honors Bachelor of Science + PEY Co-op Program 2022 - Expected May 2027
Major in Computer Science; Minors in Mathematics and Statistics

WORK EXPERIENCE

INTEL CORPORATION Bangalore, KA
Artificial Intelligence Student Trainee Jan 2019 – Jun 2022

- Part of the team that was responsible for a pioneering National Education Program in India. Helped the CBSE board and Intel to design and implement AI as a course of study for school students in the nation. I gained an understanding of key concepts, including Object Detection, Image Processing, and Pattern Recognition. My learning journey involved hands-on engagement with CV tools such as OpenCV and Google Vision, which allowed me to delve deep into the practical aspects.
- The project my partner and I worked on after 8 months of training was centred around the development of an AI-driven Complaint bot designed to read and understand hand-written text written in various rural languages using Computer Vision. Our project, developed in collaboration with Intel and in 2022, it was granted a patent in partnership with Intel.

EXTERNAL PROJECTS

QucikGather | *RestAPI, Flask-Python, React,-Bootstrap PostgreSQL, AWS S3/RDS. Heroku* Aug 2024

- Github Link : A social media app designed to simplify event planning with friends. Users can join/create a group by entering their mood, availability, budget, and preferred travel distance. The app then generates group 'stats,' providing individual and collective insights to help everyone find common ground and plan events more efficiently. I was responsible for •. Creating a full stack app with Flask/React Components/PostgreSQL • Login auth using JWT • SocketIO setup for user chat feature • Virtual Container (S3) setup for profile pictures • Creating DB schema though ORMs (SQLAlchemy) and set up RDS connection • Email Verification during signup using a wrapper of the SMTP Lib • Deployed application on Heroku.

Weedout | *Flask, Nginx/Gunicorn Bootstrap, HTML/CSS, AWS EC2, Pandas, BDD/TDD, CI/CD, Docker* Aug 2024

- Github Link : Weedout is an open-source Python package designed to streamline data preparation for CSV datasets by automating key preprocessing tasks like encoding, imputation, feature engineering, and data cleaning, tailored to the dataset type and intended model. As part of the development team, I was responsible for: • Developing and refining key functions using Pandas, Scikit-Learn, and SciPy • Implementing unit tests through TDD using nose and coverage • Setting up a CI/CD pipeline with GitHub Actions for automated testing and deployment to PyPI • Developing the Weedout website, which allows users to specify their needs, upload datasets, and receive a zip file with the preprocessed CSV and a summary of the applied techniques. • Containerized the website using Docker and managed its deployment to both an EC2 production environment and Heroku • Conducted BDD testing to ensure the website's functionality with tools like Behave and BS4 •

Palchecker | *JavaScript, Pandas, MatPlotLib, SeaBorn* Jun 2024

- Github Link : Led the development of Palchecker, a tool for rating and tracking daily experiences with reflective questions powered by a Hybrid AI model. Built during a three-day hackathon, • I handled data preprocessing, data visualization, and the building of the Hybrid AI model (Random Forest Regression and Few Shot CoT with LLama 2). • I designed and implemented an IndexedDB using JavaScript to support backend functionality, enabling updates to the check-in calendar.

GUI Adventure Games | *JavaFx, GitLab, SOLID Principles, Agile, Design Patterns* Dec 2023

- In our CSC207 class, three other members and I developed a GUI-based game using JavaFX as our final project. We harnessed its robust graphical capabilities for an engaging user experience. I : • Incorporated modern software design patterns like the Facade pattern while developing •. Employed tools like GitLab for version control • Embracred agile methodologies such as Scrum to enhance collaboration and iterative development.

TECH STACK

Languages: Python, JavaScript, Java, C, Assembly **Frameworks/ Libraries**: Flask, React, Bootstrap, Pandas, Sklearn
Database: MySQL, PostgreSQL, SQLAlchemy **Tools:** AWS, Heroku, Git, Docker