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
Coursework: Data Structures, Software Design, Information Security, Operating Systems, Database, Machine Learning

WORK EXPERIENCE

INTEL CORPORATION
Artificial Intelligence Student Trainee Jan 2019 – Jun 2022

- Selected as one of twenty students nationwide for the program.
- Over the course, I worked on core Computer Vision concepts and gained hands-on experience with tools like OpenCV and Google Vision. This training culminated in a practical project: developing an AI-driven Complaint bot. The bot's primary function was to read and interpret handwritten text in various rural languages, showcasing the real-world application of advanced Computer Vision techniques.
- Our project, developed in collaboration with Intel, was granted a patent in 2022.

EXTERNAL PROJECTS

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

- Github Link | https://quickgather-5069dcada862.herokuapp.com/
  A unique social media app specifically designed to simplify event planning with friends and family.
  - Responsible for developing the Full Stack Application with Flask/React Components/PostgreSQL/ SQLAlchemy (ORM)
  - Implemented login auth using JWT and email verification during signup using a flask wrapper of the SMTP Lib.
  - Implemented a SocketIO setup for user real time group chat feature.
  - Untlizied a Virtual Object Storage (S3) for storing and retrieving users' profile picture storage.
  - Created the DB schema though ORMs (SQLAlchemy) and set up RDS connection through Heroku.

Weedout | *Python, Flask, Nginx/Gunicorn, Bootstrap, AWS EC2, BDD/TDD, CI/CD, Docker* Current

- Github Link | www.weedout.tech Weedout is an open-source Python package designed to automate data preprocessing.
  - Developed and refined key preprocessing /statistical functions using Pandas, Scikit-Learn, NumPy and SciPy.
  - Set up a CI/CD pipeline with GitHub Actions for automating testing (unnitest) and deployment to PyPI
  - Developed the Weedout website, contains a GUI of the pipeline to interact with.
  - Containerized the website using Docker and deployed 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,
  - Handled data preprocessing, data visualization, and building a Hybrid AI model (RFR & Few Shot CoT with LLama 2).
  - Designed and implemented an IndexedDB 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.
  - Incorporated modern software design patterns like the Facade pattern.
  - . Employed tools like GitLab for version control and embracred agile methodologies like Scrum to enhance collaboration.

TECH STACK

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