Hari Nair

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harinair.ca

Involvement and Experience

Junior IT Analyst

JANA Corporation

April 2023 – August 2023

- Assist in project planning by gathering project requirements, creating project timelines, and contributing to the development
 of project plans.
- Review existing security policies and procedures, comparing them to industry best practices and providing recommendations for improvement.
- Assist with cloud automation tools to automate routine tasks and streamline cloud operations.
- Conducted Tabletop Exercises to improve existing cybersecurity measures.

Lead Stack Developer

Queen's Vertical Farming Team

April 2023 - Present

- Leading a group of developers to redesign the design team website.
- Redesigned the QVFT website in React, ensuring real-time visualization and updating of farm data.
- Employed Flask to execute back-end development responsibilities.
- Utilized PostgreSQL to store and manage incoming readings from the I/O sub-system.

Division of AI Research Member

QMIND

September 2023 – Present

Design Team of 4-5 people completing a project aimed at expanding the body of academic work surrounding AI and ML

Teaching Assistant - Programming

Queen's University

January 2024 – Present

- TA for APSC 142 (Introduction to Programming for Engineers) for the C programming language.
- Supervised and assisted roughly 200 students in in-class assignments during weekly lab sessions.

Skills

Programming Languages: C, C++, Python, JavaScript, TypeScript, CSS, HTML

Technologies: React.js, Next.js, Node.js, Pandas, NumPy, Tailwind CSS, Git, Auth0, Raylib, Redux, ROS

Databases: MongoDB, PostgreSQL, Firebase **CAD and Modeling:** SolidWorks, SAP2000, MATAB

Projects & Technical Experience

Personal Website Portfolio V2

Next.js, TypeScript, Redux, Tailwind CSS

October 2023 – December 2023

- Developed a dynamic, multipage portfolio website using Next.js, utilizing React.js and Tailwind CSS for frontend.
- Integrated with Redux for optimal state management when toggling dark mode.
- Projects and experiences are stored in JSON, allowing for dynamic webpages.

Store Website: Spice Mart - Barrie

Tailwind CSS, Next.js, MongoDB

July 2023 - August 2023

- Developed a dynamic website where clients can view menu items and inquire of any ongoing promotions.
- Leveraged Next.js and Tailwind CSS to design an attractive and responsive frontend interface.
- Developed a RESTful API using Next.js Server, enabling staff to update, delete, and add new menu items.
- Implemented authentication system utilizing Auth0, ensuring secure access for administrators to the portal and facilitating seamless CRUD operations.
- Implemented MongoDB Atlas as the backend database solution, effectively storing and managing all menu items.

Maze Generator and Solver

C++, Raylib

February 2023 – April 2023

- Developed in C++, leveraging the recursive backtracking algorithm for efficient maze creation and solution.
- Implemented heuristics to identify the optimal path for maze traversal, enhancing efficiency.
- Incorporated stack and graph-like structures to ensure efficient coding and debugging.
- Utilized the Raylib library to display and render graphics for an enhanced user experience.

Education

Queen's University – Mechatronics and Robotics Engineering (BASc)

September 2022 – Present

- Admission average over 95%
- Cumulative GPA: 3.6
- Recipient of the Dean's Engineering and Applied Science Scholarship, Carol Black Family Scholarship, and Principal's Scholarship