Harinii Prabaharan

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OBJECTIVE

Undergraduate Engineering Science Student with Python, C, Java, and AutoCAD/KiCad skills. A fast learner who is enthusiastic for learning opportunities and excels in stressful situations. Has project managing, customer service and office work experience.

EDUCATION

University of Toronto, St. George Campus

Exp. 2028

Bachelor of Applied Science and Engineering, Engineering Science

Toronto, ON

Relevant Coursework: Introduction to computer programming, Computer algorithms and data structures, Fundamental of electrical circuits, Structural and Materials, Calculus, Classical Mechanics, Molecules and materials, Engineering design.

Father Michael McGivney Catholic High School

Sep 2019 – Jun 2023

International Baccalaureate, Specialist High Skills Major, Honor Society

Markham, ON

ACADEMIC AWARDS

Dean's Merit Award

Sep 2023

University of Toronto, Faculty of Applied Science and Engineering

Ron Land & Alan Tamane Scholarship

Sep 2023

Unifor – Local 1701

EXPERIENCES

Robotics for Space Exploration – General Member

December 2023 – Present

- Currently designing a Buck Converter, ensuring a small PCB design along with a fast switching frequency
- Designed and programmed a printed circuit board for the Arm's forward and reverse limit switches, ensuring that all possibilities are accounted for.
- Utilized Fusion-360 to create the designs and reiterated through different drafts to create the finalized design.

Recreation Outreach and Engagement Ambassador

July 2023 – Present

City of Markham

- Effectively communicated with parents to inform them about new city initiatives and recreation programs.
- Informed myself on the projects and activities to ensure any concerns could be addressed with accurate information.
- Ensured children used equipment safely and appropriately, while overseeing loss prevention.

Accounting Assistant

Jul 2022 – Aug 2022

Benson Lam Accounting Office

- Prepared tax returns and created/updated general ledgers for clients.
- Utilized software, such as Sage and Word to confirm identity, previous records, and process requests.
- Communicated and responded to the individual needs of clients in a friendly manner.

COURSE PROJECTS

Seam Carving - C Project

Apr 2024

- Algorithm created to resize images using dynamic programming.
- The energy of a pixel was determined using a mathematical model and placed into an array, where a 'seam' was determined by finding the pixels with the least energy and thus removed.

Intelligent Word Detection System - Python Project

Dec 2023

- System created to find the semantic similarity for a pair of words.
- Compared the use of the words in large texts by putting them in an array with words they are often associated with.
- The synonym was determined by comparing their respective cosine similarities.

Simulation of Gomoku Game – Python Project

Nov 2023

- Objective of the game: place 5 stones of the respective colour in either a horizontal, vertical, or diagonal pattern.
- The optimal move to maximize the score is found, by analyzing the board and finding an open-ended spot.