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# NIDAL DANIAL

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## SUMMARY

Enthusiastic, curious student who is eager to contribute to industry success through hard work, problem-solving, critical thinking and excellent organization skills. My motivation to learn, grow and excel positions me as an ideal candidate for STEM jobs.

## SKILLS

**Technical Skills**

- Python, C/C++, Git, CAD, Unreal Engine 4, Verilog (Quartus), MATLAB, MS OFFICE, FPGA, Machine Learning, Data Analysis, Assembly, LT/PSpice, PLECS, Microelectronics, FL Studio, Davinci Resolve, Power BI

**Non-Technical Skills**

- Team Leadership, Complex Problem-Solving, Critical Thinking, Detail-Oriented, Organization, Analytical, Collaboration, Communication, Engineering Design.

## AWARDS AND ACHIEVEMENTS

- 2022 Spotlight Award AMD | 2023
- Exemplary Citizenship ($50) | 2019
- Schulich Leader Nominee (1 in 1500 students) | 2019
- Faculty of Applied Science & Engineering Admission Awards | 2019
- Dean's Merit Award | 2019
- Ontario Scholar | 2019

## PROJECTS

### C PROJECT | SEAM CARVING

ESC190 | Algorithms and Data Structures

- Developed a Seam Carving algorithm using **C**

### PYTHON PROJECT (PYGAME) | SNAKE AI

ESC190 | Algorithms and Data Structures

- Utilized **Pygame** to create an optimal snake game
- AI. Learned to use Python modules and Pygame

### RAY TRACING PROJECT

CSC317 | Computer Graphics

- Developed a ray tracing program in **C++** using the Eigen library for vector computations, integrating recursive algorithms for shadows and reflections.
- Utilized **Git** for version control, managed large data sets in JSON format, and generated HQ image renders in PPM format.

## INTERESTS

- Enjoy coding and working through difficult problems
- Software and hardware innovation in technology
- Enthusiast who keeps up with PC builds and enjoys learning how the components work
- Enjoy playing drums, working out, video games/editing, reading books, and watching shows to destress

## EDUCATION

### University of Toronto, St. George Campus

**Bachelor of Applied Science in Engineering Science**

**ECE Major + Business Certificate | 2T4 | 09/2019 - 04/2025**

**Relevant Coursework:**

- **Software Engineering, Algorithms and Data Structures, Intro to Machine Learning, Databases, Computer Organization, Semiconductor Eletronic Devices, Microelectronics, Foundations of Computing, Systems Software, Computer Graphics, Digital and Computer Systems**

**Thesis (Ongoing)**

- **Performance Analysis and Resource Optimization for Cell-Free Wireless Networks**

## EXPERIENCE

### Junior Software Developer Engineer PEY Internship

**Advanced Micro Devices Inc. (AMD)| Markham, ON | 05/2022 - 08/2023**

- Developed and implemented **Python** scripts to automate system testing for AMD APU hardware, integrating data collection tools (NiDAQs) to monitor power usage and performance metrics.
- Conducted **data analysis** and compiled insights from system tests, presenting findings to senior management, leading to informed decision-making.
- Cut **8%** of weekly workload of managers by creating a company-wide data analysis project, leveraging **Power BI** to create an interactive report summarizing annual performance data, enhancing visibility across departments.

**Achievements**:

- Received a **2022 Spotlight Award** from AMD and a 4-month extension to my internship

### Electromechanical Assembly Technician

Econolite Canada Ltd. | Jun 2021 - Sept 2021 | 4 mos

- Conducted bench and environmental testing on traffic controllers, identifying and reporting test failures or operational issues.
- Installed controller software and performed comprehensive electronic and mechanical assembly, ensuring proper integration and functionality of traffic control systems.

### Game Developing Design Challenge

Epic Games | Unreal Engine Discord Hub | Summer 2020

- Collaborated in a team of four with UofT students to complete workshops and create an FPS game using **Unreal Engine 4** with blueprints (simplified **C++**) to integrate in-game mechanics.

**Achievements:**

- Developed a game from scratch and gained a strong understanding of blueprints in Unreal Engine.