

Adam Sidat

Candidate for BAsC in Mechanical Engineering

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SKILLS

- Highly experienced with C and C++ development targeting Windows, macOS, and Linux
- Experienced with computer-aided design in AutoCAD and solid modeling in SolidWorks
- Trained in the safe operation of horizontal and vertical bandsaw, drill press, mill, lathe, etc.
- Excellent leadership and organization abilities; responsible and goal-oriented
- Professional communication, customer service, and interpersonal skills
- Strong problem solving and critical thinking skills

EDUCATION

University Of Waterloo

Sep 2022 - Apr 2027

1A Honors Mechanical Engineering

- Received President's Scholarship of Distinction
- Member of University of Waterloo Baja SAE Team

PROJECTS

POV Display Clock

May 2022 - Jun 2022

- Designed a cylindrical clock under \$200 based on the persistence-of-vision effect
- Fabricated an enclosure using wood, aluminum, and 3D printed ABS components
- Used Eagle to design a circuit involving 8-bit shift registers controlled by an ATmega2560
- Produced a 25 lb clock with a 30 Hz display achieved by spinning a 5 lb rotor at ~2000 rpm

Children's Toy Design

Sep 2022

- Worked with 4 peers to ideate, design, prototype, test, and produce a children's toy
- Fabricated parts of the toy manually using drill press, mill, lathe, and other machinery
- Utilized AutoCAD and SolidWorks to draft and model the toy before fabricating it

Programming

2012 - present

- Introduced to rudimentary computer programming through MIT's Scratch at the age of 6
- Highly proficient in C, C++, C#, and JavaScript; published first projects online in 2015
- Created a Monte-Carlo pathtracer using no external libraries and deriving all formulae by hand
- Implemented a C compiler for x86-64 in pure C++, without using any lexer or parser generators

VOLUNTEER EXPERIENCE

Computer Assembly and Testing

Sep 2018 - Jun 2022

Don Mills Collegiate Institute, Toronto, Ontario

- Assembled and disassembled hundreds of PCs; ensuring that all met strict requirements
- Diagnosed problems with Intel CPUs, RAM, GPUs, motherboards, HDDs, PSUs, etc.
- Gained extensive knowledge of the Unix environment through configuring Ubuntu on all PCs

Electronic Component Testing

Sep 2018 - Jun 2022

Don Mills Collegiate Institute, Toronto, Ontario

- Tasked with verifying the functionality of various electrical components in an efficient manner
- Handled dozens of component types, including capacitors, resistors, LEDs, ammeters, etc.
- Designed efficient processes which enabled the testing of thousands of components per hour

Student Tutor

Sep 2018 - Jun 2022

Don Mills Collegiate Institute & Don Mills Middle School, Toronto, Ontario

- Tutored grade 6-9 students in weekly one-on-one sessions, teaching them math and science
- Reinforced their understanding using simple analogies and encouraging constant repetition
- Contacted the students' teachers to ensure their grades were improving between sessions

WORK EXPERIENCE

Cashier and Grocery Worker

Sep 2021 - Sep 2022

Ali's No Frills, Toronto, Ontario

- Developed excellent customer service skills by interacting with hundreds of customers daily
- Managed inventory and responsible for restocking when quantities fell below their threshold
- Assisted with unloading grocery shipments and transportation of pallets between departments

AWARDS

- Mathematica Centrum Great Pythagorean Award 2016
- Mathematica Centrum Pythagoras Certificate of Distinction 2016
- Mathematica Centrum Byron-Germain Certificate of Distinction 2014
- Mathematica Centrum Thales Certificate of Distinction 2013

CO-CURRICULAR ACTIVITIES

- Swimming (Toronto Parks and Recreation) 2011 - present
- Skating (Toronto Parks and Recreation) 2012 - present