**Adam De Sousa**

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**Education**

**University of Ontario Institute of Technology,** Oshawa, Ontario 2018

* Bachelor of Engineering (Hons.) – Electrical
* Cumulative 3.00 GPA

**St. Michael’s College School,** Toronto, Ontario 2014

* Grad “M” – Awarded for excellence in the areas of Clubs & Activities, Community Service, and Athletics
* Community Service award received from Toronto Police 13 Division for being a recognized Community Leader

**Highlights of Qualifications**

* Engineer in Training (EIT) License
* Years of PC hardware and software deployment in the form of gaming/recreational computer construction
* Highly proficient in Microsoft Office suite through years of laboratory & final project reports and recording multiple documents, statistics, reports and spreadsheets as Coach of a Varsity athletics team
* Highly developed oral and written communication, time management, and teamwork skills developed through group projects, community leadership positions and workplace exposure
* Familiarity with industry software such as MATLAB, Simulink, AutoCAD, Siemens NX, EMTP-RV, ADS Keysight for Engineering Design, PCB design and DSP/Wireless communication devices
* C++ and Java academic experience; Verilog self-study

**Employment History**

**Durham College,** Oshawa, Ontario – Coach & Manager September2018 – Present

* Coach and manager of the Durham Lords inaugural Varsity Esports Counter Strike: Global Offensive team
* Recruited and coordinated players, handled event planning and finance management for the team as well as weekly report submission for the college
* Spent hundreds of hours reviewing gameplay and organizing strategies for the team to use in matches, which:
  + Lead the team to North-America wide Collegiate Starleague (CSL) Round-of-32 finals (of 200+ teams)
  + Lead team to Quarter Finals at LAN ETS esports event in Montreal, Quebec (of 56 teams)
* Due to the success of the teams, the college allocated additional funding into the programme which will allow for significant improvements made to training, equipment and travel opportunities

**Adam’s Tech Tips,** Toronto, Ontario – Owner & Operator May 2014 – Present

* Perform component cost-to-performance analysis, computer building, and stability testing for overclocking clients' PCs to net upwards of 10% performance increase for no extra hardware cost on applicable hardware
* Assisting clients with software and hardware upgrades to PC components such as operating systems, motherboards, RAM, graphics cards, CPUs, power supplies, SSD’s and HDD’s, monitors, keyboards, mice, etc. to meet the customer’s requirements
* Have made hundreds of individualized lists of computer parts for clients ranging from $700 to $3000+
* Assist in troubleshooting and upgrading components
* As an avid and passionate PC enthusiast, I look forward to every new build as a challenge and thoroughly enjoy the test of my knowledge and always look to improve, as I realize there are always new things to learn and multiple ways to improve

**Haber’s Compounding Pharmacy,** Toronto, Ontario – Pharmacy Assistant September 2013 – July 2014

* Tasked with taking inventory, restocking the supply room, working cash register, making deliveries, sorting prescription slips
* Assisted in resupplying prescriptions to ensure that consumers needs are met
* Prepared and sorted purchase orders for materials, this allowed us to track the incoming and outgoing products gave us an opportunity to learn what consumers were looking for
* Safely disposed of waste materials by sorting it into its correct bins

**Project Experience**

**UOIT Capstone – *Autonomous Drone*** 2018

* Collaborated with group members and our professor to identify the scope of the project
* Took lead as project coordinator; kept track of progress and project milestones and kept the team focused on progressing
* Using readily available and cost-effective components, was tasked with building a drone that would fly autonomously based off sensor data collected from a moving object
* Final designed used Arduino GPS modules and an algorithm that received the GPS coordinates
* These coordinates were then input into our algorithm to enable our drone to follow the object emitting GPS coordinates
* Drone would automatically return to its launch point upon warnings of low battery to prevent drone from becoming irretrievable or damaged

**Adam’s Tech Tips – *Unconventional Personal Computer Builds***  2018

* I was tasked with designing a stealth home theatre PC to be placed in a living room space
* Using a non-functioning tower speaker, removed the internals and safely mounted the computer components to the interior
* Utilizing low power components, the PC is fully functional, silent and fits all the client’s requirements
* Client was incredibly happy with the overall result and sends follow-up messages any time he refers others to my services

**Advanced Control Systems Final Project – *Battery Management System*** 2017

* Collaborated with group members and our professor to design a battery monitoring and control system for a large bank of batteries to be used in residential condominium environments
* System would discharge during peak loads and charge during the off-peak hours to aid in power grid stability
* The final designed utilized a Power Conversion System, consisting of an AC filter, Inverter array, DC bus, and chopper connected to each battery array which would have charge balancing capabilities to ensure the longevity and proper functionality of each cell
* Results concluded with a working BMS prototype that could be used in real-world applications
* Simulation was made in MATLAB/Simulink with a physical demo consisting of small-scale components

**Project Management Final Project - *Head Motion Operated Computer Cursor Controller*** 2017

* Our group was tasked with designing a device to assist someone with limited use of motor skills in using a computer
* The group decided to design and create a device which translated head movement into computer cursor movement for people with limited motor function
* The final designed utilized a 3-in-1 Arduino module (Gyroscope, Accelerometer, Magnetometer) in order to receive all the necessary inputs and sensor data for our program to function properly

**Community Leadership Positions**

**Scouts Canada,** Toronto, Ontario – Scout Leader September 2014 – Present

* As a Rover Scout and a Scout Leader, have spent years leading youth groups and developing interpersonal communication skills

**Milkmats for HUMANITY,** Toronto, Ontario – Co-Founder & Co-President at SMCS September 2013 – May 2014

* Working together with MILKBAGSunlimited, the St. Michael’s community collected old plastic milk bags and repurposed them to be cut and linked in threads, then woven into mattresses
* We made over 50 mattresses in our inaugural year that were donated to homeless shelters and disaster relief charities

**Green Council,** Toronto, Ontario – President September 2013 – May 2014

* Devoted to taking initiative to help the community around the school by organizing programs such as the Battery Recycling programme which served to reduce the number of dead batteries in landfills by properly disposing of them

**St. Michaels College School,** Toronto, Ontario – Peer Tutor September2012 – May 2014

* Assisted peers in obtaining extended knowledge in Math, Physics, Chemistry and Biology
* Lent assistance in the writing of English essays