Neal Elharidy

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EDUCATION   The University of British Columbia - SBME Systems and Signals Engineer

PROFESSIONAL EXPERIENCE

Soapstand LLC. - Systems and Assembly Engineer
Aug 2022 - Sep 2023
- Improved production from 6 to 10 machines built weekly by streamlining the assembly processes and communication between the assembly team and senior engineers.
- Fabricated controllers and driver boards PCBs using reflow soldering and micro soldering.
- Setup and validated batch's firmware then reported bugs to development team.
- Performed, logged and automated QC testing for assembled machines on the hardware side following ISO 9001 standards.
- Trained new assembly technicians on processes, documented assembly instructions, and supervised as line QA.

UBC's Green Joule Design Team - Executive Team Lead
July 2021 - April 2022
- Oversaw, organized and delegated wet lab research, production and financial work amongst 4 subdivisions totalling 30 members under my direct supervision.
- Coordinated with the School of Chemical and Biological Engineering, the School of Botany, and the BIOT design team on multiple collaborative projects including deploying a unified algae/brewing reactor with BIOT.

National Undergraduate Big Data Challenge - Team Engineer
July 2021
- Collaborated with three colleagues, researching a way to implement machine learning to predict the spread of information on COVID-19 via social media.
- Derived an algorithm that analyzes the social influences of social media posts and reports an information accuracy score.

UBC's Spinal Cord Injury Association - Marketing Team Lead
Aug 2021 - Dec 2021
- Designed and consolidated the design elements of the SCIA all on the Figma platform.
- Managed and directed the marketing division's resources including business social media accounts.
- Managed events and outreach through social media interactions with current and former UBC Students.

Hamad Hospital - Facilities Volunteer
Feb 2021 - June 2021
- Received vaccine thermal shippers containing 5000 vaccines each, appropriately forwarded amounts to storage and medical personnel.
- Generated reports regarding medical instrumentation to be restocked, thermal shippers received, and daily vaccines administered.
- Assisted in general administration and system IT issues

UBC's Green Joule Design Team - Growth Subdivision Lead
Sept 2020 - July 2021
- Increased 2021 annual yield of biofuel synthesized by 12% via researching and implementing a modified Folch technique of lipid extraction.
- Decreased cost per litre by 30% by utilizing local cultures growth mediums collected from UBC grounds.
- Developed a method of producing alcohol from fermentation and biofuel in a unified bioreactor that was later presented to fellow design team BIOT to allow Carbon negative brewing.

Biz-Hacks - Hackathon Team Engineer
Feb 2020
- Engineered and modelled in Fusion 360 a new AI-driven interactive booth for Best Buy.
- Fabricated a prototype and modelled the booth's UI and its accompanying management and end-user apps using Python.

HBKU | Inovate.Create - Finalist (2nd Place)
Jan 2018 - Feb 2018
- Constructed and implemented a variety of engineering project during the length of the program including an accessibility app that allowed disabled patients to better communicate with their care givers.
- Collaborating with Masters and PhD candidates, I developed and iterated on team's cryptography algorithms aimed at competing against others in a challenge, with the primary objective of decrypting the competition's algorithms.

Carnegie Mellon University - MindCraft Project Intern
April 2017 - May 2018
- Counselled the participating members throughout the program ensuring the teams maintained cohesion.
- Documented participating team's status reports, assisting the teams that required aid.
- Built and maintained the technical tracks, and workshops throughout the weeks of the program.

ADDITIONAL EXPERIENCE & COMMUNITY OUTREACH

Vancouver General Hospital - Hemodialysis Team Volunteer
June 2021 - July 2021
- Provided support for the patients and family as needed during the dialysis process, alerting staff if a patient reports or appears to be feeling discomfort.
- Accompany patients, assist them with their personal belongings as they moved throughout the hospital or waited for a bed to be available.

Sungiven Foods - Part Time Backend Associate
June 2021 - Nov 2021
- Handled scheduling and receiving of stock deliveries within a 20min interval schedule due to perishable goods.
- Supervised stock management for multiple departments ensuring a steady stream of products is available for customers.
- Trained in database management, and inventory assessment tools on the EPOSNOW system.

Dr. Demco Private Holdings - Automotive Maintenance and Detailing Specialist
Sep 2020 - July 2021
- Leveraged diverse automotive expertise to meticulously maintain and detail Mr.Demco's collection, encompassing classic MGs from the 1960s to modern VW Jettas from 2006.
- Executed comprehensive maintenance tasks, including oil changes, brake inspections, tire rotations, and engine tune-ups, displaying a strong eye for detail.
- Transformed vehicles into pristine showpieces through professional-grade detailing work, encompassing exterior and interior cleaning, waxing, polishing, and upholstery care.

CERTIFICATION

The University of British Columbia:
- Workplace Hazardous Materials Information System - Certificate ID: SRS_GWHMIS_Oct2020idy14Nea9
- Introduction to Laboratory Safety - Certificate ID: SRS_ILS_Oct2020idy14Nea57
- Privacy and Information Security - Certificate ID: SRS_PRSEC_Oc2020idy13eal9 & SRS_PRSEC2_Oc2020idy13eal9
- Design for Everyone - Completion Date: Oct 11, 2021

PROFESSIONAL SKILLS

Programming and Software Skills
- **Python -** 6 years of experience in academic and personal projects.
- **Matlab -** 4 years of experience in academic and personal projects.
- **C# & C++ -** 3 years of experience in academic projects.
- **R & R-Studio -** 2 years of experience in academic projects.

Engineering Skills
- **Solidworks -** 5 years of experience in academic projects.
- **Fusion 360 -** 3 years of personal projects.
- **PCB Fabrication -** 1 year of experience in a professional setting.
- **Optical Chip Design -** Academic experience in KLayout and Lumerical Mode
- **LLM Implementation -** Personal project experience in Tensorflow V2 and PyTorch
- **FDM 3D Printing -** Personal project experience in writing custom firmware for the Ender V2-neo.