

Neal Elharidy

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Summary

I am a SBME Systems and Signal Engineer. My top experiences include LLM training and optimization using TensorFlow V2 and PyTorch, implementation of Distilbert and GPT-2 subsystems. My proficiencies include Python, C#, and C++, as well as data analysis and modelling using R and MATLAB. I'm also skilled in CAD modelling and simulation, employing Autodesk Fusion 360 and Solidworks. My robust engineering foundation and history of successful team work, allows me to absorb information, learn and apply new skill sets to my work. I'm eager, ready, and grateful for any opportunity that I am given and excited to see what the future of my career holds and what I can learn on the way.

Experience

Soapstand - Systems and Assembly Engineer

Aug 2022 - Sep 2023

- Improved production from 6 to 10 machines built weekly by streamlining Assembly processes and communication between assembly team and head engineers.
- Fabricated controller and driver board PCBs using reflow soldering and micro soldering.
- Setup and Validated batch's firmware and reported bugs to development team.
- Performed, logged and automated QC testing for assembled machines.
- Trained Assembly technicians on processes, documented assembly instructions, and supervised as line QA.

UBC Envision Green Joule - Executive Green Joule 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.

Green Joule Growth Subdivision Lead

Sep 2020 - July 2021

- Increased 2021 annual yield of biofuel synthesized by 12% via researching and implementing a more effective lipid extraction techniques.
- 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.

Hamad Hospital - Facilities Systems Intern

Feb - June 2021

Doha, Qatar

- 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
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Education

The University of British Columbia - May 2024
BMEG, System and Signals Design Engineer.

Relevant Skills Acquired:

- LLM training and optimization via Tensorflow V2 and PyTorch.
 - Distilbert and GPT-2 subsystem implementation.
 - Data analysis Using R and MATLAB.
 - Object oriented Programming using Python, C# and C++.
 - CAD modelling and simulation using Autodesk Fusion 360 and Solidworks.
 - Optical chip design using Lumerical Mode.
 - Protein folding using Marvin and Pymol.
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Certifications

The University of British Columbia:

- Workplace Hazardous Materials Information System
Certificate Number: SRS_GWHMIS_Oct2020idy14Nea9
- Introduction to Laboratory Safety
Certificate Number: SRS_ILS_Oct2020idy14Nea57
- Privacy and Information Security
Certificate Number: SRS_PRSECF_Oc2020idy13eaI9
& SRS_PRSEC2_Oc2020idy13eaI9

Mathworks (MATLAB):

- Signal Processing Onramp
- Image Processing Onramp