ZAIN KHAN

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EDUCATION

WESTERN UNIVERSITY | LONDON, ON | *Sept 2016 – April 2021*
Dual degree in Computer Science (BSc) and Mechatronics Systems Engineering (BESc) – 3.8 GPA

TECHNICAL SKILLS

FRONTEND | React JS/TS, Node, HTML, CSS
BACKEND | Python, PyTest, Java, C#
EMBEDDED | C, C++, MATLAB, Simulink
DATABASE | SQL, GraphQL, PostgreSQL, MongoDB
OTHER | Sklearn, Unix, Git, Kubernetes, Docker

WORK EXPERIENCE

HELIOLYTICS | FRONTEND DEVELOPER | TORONTO, ON | *Aug 2021 – June 2023*

- Led development of a new internal React based web tool, from working alongside users in defining requirements to launching the app into production, decreasing turnaround time of image data collection to generating client reports and effectively allowing for a higher capacity of clients.
- Full stack responsibilities such as managing a GraphQL database, writing python scripts, implementing/testing internal API endpoints, utilizing ML algorithms, handling authorization tokens and other tasks as required. Adept at documenting and detailing all software design decisions.
- Lead developer for various SAAS POC's with regards to solar site management. Played an active role in the creation of a formal scrum team, defining processes between product, design and QA.

UNIVERSITY OF CALGARY CHEMICAL ENGINEERING| DEVELOPER | CALGARY, AB | *May – August 2020*

- Primary developer as part of a multidisciplinary team to assist the transition of establishing teaching resources online for the Chemical Engineering Department at the University of Calgary, during COVID-19.
- Utilized JavaScript, HTML and CSS to create interactive web pages consisting of content and calculators for students to use as well as a database to keep track of individual progress.

RUFFALO NOEL LEVITZ | CALL CENTER AGENT | LONDON, ON | *Sept 2017 – Sept 2018*

- Contacted Western University alums to update the online database and request donations to the various campus related funds and scholarships, to meet required donation quotas.

PROJECTS

LOCALNEIGHBORHOODCNN | *November 2023*
A Java based locally implemented CNN, trained and tested on the MNIST database. Implements the convolutional, max pool, and fully connected neural network layers. Acts to test the effects of changing network parameters and understanding the mathematics behind backpropagation.

PYCOVID | *June 2020*
Utilized Python, Selenium and MySQL to collect open source COVID-19 data for several cities, maintain data in a local database, and analyze with statistical libraries to evaluate trends, updates and make predictions correlating COVID rates with city temperatures.

PYTICTACTOE | *June 2020*
Utilized Python and tkinter GUI to create an interface for Tic Tac Toe against a computer, with varying levels of difficulties. The most difficult level uses the minimax algorithm.

SONGQ | HACK WESTERN | *November 2017*
A web application utilizing Node.js, HTML and CSS to interact with Spotify's API and allow users to host a shared playlist that automatically queues based on collected votes from those with access.