

# LEEN ALZEBDEH

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## SUMMARY

Computing science student in my fourth year at the University of Alberta. Some of my qualifications include:

- Contributed to the successful deployment of a business website as a JavaScript developer.
- Worked as a Django backend developer to create a social network platform web app.
- Trained, tuned, and deployed various machine learning (ML) models with PyTorch and TensorFlow.
- Customized artificial intelligence (AI) models, such as YOLOv5, for computer vision applications.

## WORK EXPERIENCE

SEPTEMBER 2022 – DECEMBER 2022

**Frontend Developer** | Zero RampUp Edmonton, AB

- Collaborated in a 7-member team to develop and deploy a business website using JavaScript (React ES6).
- Utilized Agile methodology with weekly stand-ups and sprint planning.
- Developed custom React Hooks to facilitate seamless retrieval of asynchronous data from a REST API and dynamically update website components.
- Engaged in pair programming with frontend developers and conducted code reviews to ensure code quality.

2020 – PRESENT

**Tutor** | Paper Edu Edmonton, AB

- Tutor K-12 students in computer science and mathematics, earning an average of 94% positive reviews.
- Provide code review for computer science students in Java, Python, C and JavaScript.

JULY 2022 – PRESENT

**Street Team Member** | Reverb Communications Edmonton, AB

- Established booths to educate the public on train-related safety ahead of the valley train line opening.
- Engaged large audiences, reaching 80+ persons per hour regularly.

JULY 2018 – AUGUST 2018

**Intern** | University of Alberta: Department of Computing Science Edmonton, AB

- Collaborated on a 6-week research project to optimize the performance of a program that simulates the board game Hex, mainly through refactoring and rewriting existing code.
- Presented the research findings to a 30+ person audience.
- Completed duties ahead of schedule and took initiative to advise another team.

## EDUCATION

**Bachelor of Science, Specialization in Computing Science** | University of Alberta, Edmonton, AB | 2020 - 2024

## PROJECTS

**Autonomous Robot Driving Using Robot Operating System (ROS)** | [Project Link](#)

- Developed ROS packages to enable a robot (Duckiebot) to autonomously navigate miniature roads using image processing to drive parallel to yellow road lines.
- Trained a TensorFlow-based deep learning model (detectron2) on a custom dataset of images to detect rubber ducks and other Duckiebots and avoid collision.

### **Django Backend Developer** | [Project Link](#)

- Contributed to a team of 5 to develop a blogging/social network platform web app that is linked with other teams' unique APIs and can aggregate activity from their web servers.
- Built the app's backend, integrated APIs, and wrote unit tests in Django.

### **Linear Regression, Neural Networks and SVM to Predict Edmonton's Weather** | [Project Link](#)

- Implemented linear regression, neural networks, support vector machine (SVM) algorithms to predict temperature and precipitation using Edmonton's daily weather dataset.

### **Semantic Image Segmentation on MNISTDD-RGB** | [Project Link](#)

- Customized a U-Net model for image segmentation on the MNIST Double Digits RGB dataset and achieved 86% accuracy.

### **Android Developer** | [Project Link](#)

- Collaborated in a team to create a social media Android app using Java, XML and Cloud Firestore.
- Implemented a map to share a post's location, with address search and selection using Geolocation API.
- Employed JUnit for unit testing to enhance code quality and prevent bugs.

## **SKILLS**

- Languages: Python, C, Java, Julia, JavaScript/ TypeScript, SQL, HTML/CSS, XML.
- Technologies: React, Django, Android, Git, JUnit, Docker, NumPy, PyTorch, Keras, TensorFlow, Pandas, Linux.
- Databases: MongoDB, PostgreSQL.

## **RELEVANT COURSEWORK**

### **CMPUT 328: Visual Recognition**

- Implemented supervised and unsupervised machine learning methods, such as Autoencoders, AC-GAN, VAE, Vision Transformers, LSTM, and unsupervised domain adaptation.

### **CMPUT 291: File and Database Management**

- Explored entity-relationship model; relational model, and implemented projects in SQL, and MongoDB.

### **CMPUT 204: Algorithms I**

- Explored and implemented many searching, sorting, and graph algorithms.

### **CMPUT 366: Introduction to Artificial Intelligence**

- Implemented a Q-learning algorithm to solve a maze problem.
- Explored algorithms to solve deterministic shortest path problems, such as A\*, heuristic depth search, and branch and bound.

### **CMPUT 401: Software Process and Product Management**

- Demonstrated best practices in software projects and product development.