# LEEN ALZEBDEH

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## HIGHLIGHT OF SKILLS

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.

#### **SKILLS**

- Languages: Python, C, Java, Julia, JavaScript/ TypeScript, SQL, HTML/CSS, XML.
- Technologies: React (ES6), Django, Android, Git, JUnit, Docker, NumPy, PyTorch, Keras, TensorFlow, Pandas, scikit-learn, Matplotlib, Linux, Shell.
- Databases: MongoDB, PostgreSQL.
- Soft skills: time management, communication, teamwork, flexibility.

## **EDUCATION**

University of Alberta

Edmonton, AB

Bachelor of Science, Specialization in Computing Science

2020 – April 2024

• Related coursework: Visual Recognition (computer vision), Web Applications and Architecture, Introduction to AI, Software Process and Product Management.

## **WORK EXPERIENCE**

Zero RampUp

Edmonton, AB

Frontend Developer

September 2022 – December 2022

- Collaborated in a 7-member team to develop and deploy a business website from scratch, using JavaScript.
- 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.

Paper Edu

Edmonton, AB

Tutor

2020 – Present

- 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.

**Reverb Communications** 

Edmonton, AB

Street Team Member

July 2022 - Present

- Establish booths to educate the public on train-related safety ahead of the valley train line opening.
- Present and disseminate educational materials, proactively addressing inquiries to enhance public knowledge and adherence to train safety protocols.
- Engage large audiences, reaching 80+ persons per hour regularly.

University of Alberta

Edmonton, AB

Intern July 2018 – August 2018

- 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 findings to an audience of over 30 peers, faculty, and industry professionals. This presentation highlighted key optimization strategies, demonstrated improved program performance metrics, and facilitated an interactive Q&A session to engage the audience and clarify complex technical concepts.
- Completed duties ahead of schedule and took initiative to advise another team.

## **PROJECTS**

# **Distributed Social Networking Web App**

**Project Link** 

Django Backend Developer

*January* 2023 – *April* 2023

- 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.
- Tools: Python, Django, React.

# **Autonomous Robot Driving Using Robot Operating System (ROS)**

**Project Link** 

ROS Developer

February 2023 – April 2023

- Developed and launched ROS packages in a Linux environment to enable a robot (Duckiebot) to autonomously navigate miniature roads using image processing to drive parallel to yellow road lines.
- Utilized Docker to containerize the ROS packages, ensuring a consistent and isolated runtime environment for deployment.
- Trained a TensorFlow-based deep learning model (detectron2) on a custom dataset of images to detect rubber ducks and other Duckiebots and avoid collision.
- Tools: Python, ROS, OpenCV, TensorFlow.

# **Habit Tracking Social Media App**

Project Link

Android Developer

September 2021 – December 2021

- 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.
- Tools: Java (Android), XML, JUnit, Cloud Firestore.

# **Semantic Image Segmentation on MNISTDD-RGB**

Project Link

Computer Vision Developer

November 2022 – December 2022

- Customized a U-Net model for image segmentation on the MNIST Double Digits RGB dataset and achieved 86% accuracy.
- Tools: Python, PyTorch, NumPy.

# Linear Regression, Neural Networks and SVM to Predict Edmonton's Weather

Project Link

Machine Learning Developer

*March* 2023 – *April* 2023

- Implemented linear regression, neural networks, support vector machine (SVM) algorithms to predict temperature and precipitation using Edmonton's daily weather dataset.
- Tools: Python, Matplotlib, NumPy, TensorFlow, scikit-learn, sodapy.

# **VOLUNTEER EXPERIENCE**

- Barista at The Carrot Community Arts Coffeehouse: skillfully prepared beverages and fostered a warm, inviting atmosphere, enhancing community engagement at the coffeehouse.
- Art Booth Coordinator at The Works Art & Design Festival: managed an art booth, presented artworks, and interactively engaged with visitors, enriching their experience and understanding of the art.