

KORAL KULACOGLU

Backend Developer

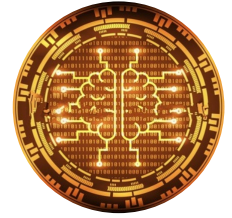
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in koralkulacoglu



An extremely productive and innovative programmer/student with over 5 years of coding experience, hoping to make the world a better place to live in with artificial intelligence.

EXPERIENCE

Backend Developer

Unitic

December 2020 – Ongoing

Remote

- Built and integrated an artificial neural network system to generate online therapy plans for Tourette syndrome.
- Developed Python scripts to automate formatting the HTML code of diagnostic figures.
- Edited HTML/CSS/JS codes to fix bugs in the diagnostic portion of the official GitHub project.

Camp Counsellor

Thornhill Community Centre

July 2020 – 2 Weeks

Markham, ON

- Learned how to properly resolve conflicts in a workspace.
- Planned and formulated engaging activities for youth campers.
- Co-lead groups of up to 30 campers.

PROJECTS

KorCNN

Personal Project

May 2021 – 1 Week

- Built a convolutional neural network module from scratch in Python using the NumPy library.
- Added custom optimization methods and model creation.
- Formatted medical datasets for AI training.
- Integrated matplotlib training process graphs.

Canada-Wide Science Fair

Partner Project

April 2021 – 6 Weeks

- Developed a testing platform for neural network optimizers.
- Invented a physics-based backpropagation optimizer.
- Developed perceptron and convolutional neural network modules from scratch in Python.
- Built a prototype website using HTML/CSS/JS and Flask.

Autonomous Car

Personal Project

November 2020 – 2 Weeks

- Built a self-driving car software in Python using OpenCV.
- Implemented lane detection and stabilized steering systems.
- Created a real-time video user interface.

ACHIEVEMENTS



Honor Roll - High School

An award given to a small portion of students with outstanding grades. Obtained an above 90% average.



Silver Medal - CWSF

One of the top projects in the Canada-Wide Science Fair. Competed against the winning projects across Canada.



Disease & Illness Award - YRSTF

The project with the best innovation towards disease and illness in the York Region Science & Technology Fair.

SKILLS

Machine Learning & AI

Data Science

Electronics

Competitive Programming

Data & Algorithms

Web Development

Python

C/C++

JavaScript

HTML & CSS

Java

C#

LaTeX

Vim

VS Code

Linux

Raspberry Pi

LANGUAGES

English
Native



Turkish
Native



French
Intermediate



EDUCATION

International Baccalaureate Program

St. Robert CHS

September 2019 – Ongoing

4.0/4.0 GPA

PUBLICATIONS

Kulacoglu, K., & Tan, I. (2021). *Cancer Detection with Optimized Neural Networks*.