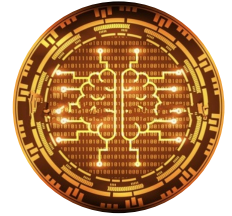# KORAL KULACOGLU

**Backend Developer**

@ kulacoglukoral@gmail.com    📍 Thornhill, Ontario    📞 647-544-4655    KoralK5    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 page.

### 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** 🔗
Obtained an above 90% grade 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.*