# Chingis Toktamyssov

343-204-0702 | coktamyssovthingis@gmail.com | linkedin | github | personal website

## Education

**University of Ottawa** Ottawa, ON
*Bachelor of Applied Sciences - Computer Engineering (Honours)* *Sep. 2025 –*

## Projects

**Digital Clock** | *KiCad, Fusion360, C++* September 2025
- Designed a custom PCB in KiCad and assembled surface-mount components using micro-soldering techniques
- Integrated an Arduino Nano with an RTC module and shift registers for timekeeping and display control
- Developed embedded firmware in C++ to manage timing, data transfer, and display multiplexing
- Verified system operation using DMM measurements and functional testing

**Rubik's Cube Solver** | *Fusion360, C++, React.js, Node.js* October – November 2025
- Designed mechanical components using CAD and integrated stepper motors with motor drivers
- Programmed an ESP32 microcontroller in C++ to control motor sequencing and timing
- Developed a web-based interface using React and Node.js for system control and visualization
- Integrated hardware and software subsystems into a functioning electromechanical system

**Three Body Problem** | *OpenGL, C++* November – December 2025
- Implemented a numerical simulation of the three-body problem using Newtonian mechanics and RK4 integration
- Developed real-time visualization using OpenGL to analyze system dynamics
- Performed vector and matrix computations in C++ using the GLM library

**Playing Card Recognition** | *Python, PyTorch, Computer Vision* January – March 2025
- Trained a convolutional neural network using PyTorch on a Kaggle dataset to identify playing cards from images
- Developed a real-time recognition system integrating a webcam feed to classify cards on the fly
- Achieved high accuracy in multi-class classification and optimized inference speed for practical use

**Derick Dong's Revenge** | *Blender, Unity, C-Sharp* December 2025 – Present
- Developed a 3D mock-horror video game using the Unity game engine
- Designed character models and animations using Blender

## Technical Skills

**Design**: KiCad, Fusion360, Blender
**Embedded**: C/C++, Arduino
**Software**: Python (PyTorch, Selenium), JavaScript, React, Node.js, Git, Linux, OpenGL, Unity
**Laboratory**: Oscilloscope, DMM, Logic Analyzer, Soldering
**Soft Skills**: English (Fluent), French (Fluent), Russian (Fluent)

## Experience

**FRC Robotics** July 2023 – August 2025
*Spark Youth Robotics* *Ottawa, ON*
- Member of the mechanical team
- Assisted in assembling the robot chassis and drive components
- Served as a member of the drive team during the CNE competition

**Construction Labourer** June – August 2025
*Piamonte Painting and Wall Covering* *Ottawa, ON*
- Painted interior and exterior walls, including surface preparation and priming
- Handled and transported paint, materials, and equipment across job sites
- Maintained job site cleanliness and followed safety protocols while working in a team environment