

Ian Yurychuk

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Objective

I am a 4th year Computer Engineering looking to gain development experience by collaborating on projects. I am interested in embedded systems and mobile application development.

Education

BScEng Computer Engineering

University of Alberta 2017 – present

Red Seal Journeyman Automotive Service Technician

NAIT 2013-2017

Skills

- C, Java, Python, C++, Git, VHDL
- PlatformIO, Android Studio, STM32Cube, Xilinx Vivado
- CAN, SPI, UART, I2C

Projects

Albertaloop Software Team

Software Team Lead

- Organized meetings and work sessions. Assigned tasks to members and tracked progress using Github.
- Planned onboard microcontroller network by determining responsibilities for each node and selecting CAN to link nodes. Prototyped network by transferring CAN messages between nodes.
- Helped write GUI backend which communicates remotely with the vehicle over a UDP connection.
- Wrote firmware for the Navigation system which estimates the vehicles position using GPS and accelerometer measurements combined with kinematic equations in a Linear Kalman Filter.

ARVP Software Team

Optimized a Python script for downloading labelled images from LabelBox.

- Used ThreadPoolExecutor() from the concurrent.futures package to download and export

the images and annotations using from separate URLs simultaneously.

ARVP Electrical Team

Underwater Acoustic Modem

- Planned our design based on the thesis paper “Design of a Low-Cost Underwater Acoustic Modem for Short Range Networks” by Briget Benson.
- Learned background knowledge of Piezoelectric transducers, power amplifiers, and digital modulation using frequency shift keying (FSK).
- Selected appropriate FPGA and piezoceramic cylinder for our project needs.

Work Experience

Speedy Auto Service – South Central Edmonton

Journeyman Technician

April 2017 – September 2017 / June 2018 – September 2018

- Performed diagnostics and carried out comprehensive repairs on domestics and imports.
- Routinely completed out of province, insurance, and Uber inspections.
- Advised customers on vehicle repairs and provided estimates of repair costs.
- Supervised an apprentice technician over a period of four months.

NAPA AUTOPRO – City Centre Automotive – Grande Prairie, Alberta

Apprentice Technician

March 2014 - October 2015

- Diagnosed and repaired brake and suspension components on a routine basis.
- Completed government inspections such as insurance, taxi, out of province, taxi, and commercial vehicle inspections under the supervision of a journeyman technician.
- Developed skills to carry out complicated repairs and correct drivability issues.