TREVOR R. SMITH

ENGINEERING STUDENT

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EXPERIENCE

Research Assistant

University of Guelph AICV Lab

March 2019 – Ongoing Guelph, Ontario

- Modelled dynamics of four-wheeled omni-directional robot
- Designed real-time control systems using NARX network for position and velocity control for use in path planning applications
- Developed feedback control loop for detecting encoder changes and estimating motor velocity
- Filtered Intel D435i video stream for joint-detection and distance estimation using OpenPose

Innovation Web Application Developer

Sun Life Financial

April 2018 – August 2018 Toronto, Ontario

- Developed PoC voice applications, IVRs, and website chatbots using DialogFlow, AWS and Microsoft Azure
- Maintained the Sun Life Financial Provider Search Google Home and Alexa skills with a team by efficiently separating and developing tasks
- Collaborated with team members by documenting according to industry standards and maintaining proper version control

PROJECTS

Capstone Design Project

University of Guelph

September 2019 – Ongoing

- Develop docking system for robot in agile manufacturing setting
- Create localization system to return robot to base
- Build novel automated robotic end-effector detection and replacement mechanism

MyWay Survey

Personal

Ongoing

Developing a system for a simpler, more personal survey filling experience in my spare time. Main points highlighted below:

- Programmed Arduino to print unique numeric code to receipts and upload data to Firebase in real-time using an ESP8266 Wi-Fi module
- Developed DialogFlow skill through Node.JS to allow customers to answer surveys through Google Assistant or IVR
- Created webhook to verify customers survey code at time of use and send custom survey based on purchases
- Reward user with discount code sent through SMS or email

MY LIFE PHILOSOPHY

"You can't always solve modern problems with classical solutions"

MOST PROUD OF

International Brotherhood of Electrical Workers Scholarship
Awarded for achieving highest average of Engineering Systems and Computing students in first year

FPCBP Scholarship
Awarded based on academics, extracurriculars, and community-involvement

STRENGTHS

Hard-working | Passionate | Motivator & Leader | Honest

C/C++ | Embedded Systems | Java | Statistical Analysis | Python

LANGUAGES

English ●●●●●

French ●○○○○

Portuguese ●○○○○

EDUCATION

B.Eng. in Engineering Systems and Computing

University of Guelph

Sept 2016 – Ongoing Average: 83%

SOCIETIES

- IEEE Student Member (2 years)
- IEEE Control Systems Society Student Member (1 year)
- IEEE Robotics and Automation Society Membership (2 years)