# Robert Andrew Conrad

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### EXPERIENCE

Face 4 Systems

Ottawa, ON

Software Engineering

July 2021 - Present

- Mobile & Web: Developed multiple cross platform mobile apps in Flutter/React/C++/C# MAUI.NET to perform Face Recognition enrollment and access control use cases in both stationary and "On The Go" situations. Process includes UX and architecture design, testing and Continuous Integration(CI)
- Backend: Designed REST API Clients in C#.Net, Flutter and Javascript to perform image analysis, system controls and large scale data migration. Integrated 3rd Party interfaces and deployed in a secure and easily expandable environment
- **DevOps**: Created workflows to support deployment of the application in AWS for customer use using containerization and scripts created in Bash, Powershell, Javascript and Golang

Quantropi Ottawa, ON

Engineering Intern

May 2020 - Dec 2020

- **DevOps**: Developed a quality assurance and CI process for dynamic C++ and Python SDK delivery using CMake and Bash
- QA: Created an automation script that randomized inputs that could integrating into existing CMake and xUnit frameworks

Ciena Ottawa, ON

Software Developer, Coop

Sept 2019 - Dec 2019

- o Distributed Apps: Developed a cross system micro service in Go for logging, data export and API configuration
- Database Debugging: Fixed variety of bugs in NoSQL database Swagger API and supporting Swagger API

Pleora Technology

Ottawa, ON

Embedded Software Developer

Jan 2019 - April 2019

- o Imaging Firmware Bootloader: Expanded functionality of existing tool to recognize new camera specifications
- License Manager: Created a licensing tool to perform offline creation, validation and distribution in C#

Nordiasoft Gatineau, QC

Mobile Application Developer

May 2018 - August 2018

• Android: Created a Android app in Java that turned a phone into a radio input and controller using a SDR

## Programming Skills

- Programming Language Golang, Flutter/Dart, C/C++, C#, JavaScript/React, Python
- Frameworks & Tools .NET (C# MAUI, ASP.NET .NET 4.8), SQL (SQLite, PostgreSQL, Microsoft)
- **DevOps** VCS (Git,Mercurial,CVS), CI (Jenkins, Bamboo), Docker, Virtualbox, AWS (EC2,Route 53), CMake

#### **EDUCATION**

### University of Ottawa

Ottawa, ON

Bachelor of Applied Science, Computer Engineering (Management & Coop Options) Cum laude

2016-2021

- o Topics: Programming, Algorithms, Systems Design, Database, AI, Networking etc
- Extra Curricular: IEEE uOttawa Branch Treasurer/Chair, uOttaHack Founding Team 2017/19,Ottabotics Software Team Lead, ESSCO Board Chair, Endowment Fund Committee 2018-22

### uOttawa Roboboat

Software Co-lead

Team Lead

University of Ottawa

September 2017 - December 2018

• Architecture: Designed systems architecture for multi competition autonomous surface vehicle in ROS, Python and C++. Primary focus on control integration and core behaviour systems

• Algorithms: Worked alongside masters student to determine algorithms to solve each navigation challenge, including RA\* and decision tree

# Capstone Research: Retirement Hygiene Management

University of Ottawa

January-December 2020

- **Design and Proposal**: Developed a prototype system for local medical technology engineer to monitor water use of an individual in a private and none invasive way to allow longer self autonomy per the Emerging Technologies Report of 2019
- Hardware: Created Hardware side REST API Call to transit Data over REST API via Python and Go with a option Camera Module
- Architecture: Designed systems architecture including hardware design and network architecture for local hardware to communicate with Healthcare Agent Data Portal