# **Lucas Rahn**

#### **Skills**

#### Languages

Python, Solidity, Javascript/Typescript, Bash, ASM, Matlab

### **Technologies and Frameworks**

React, React Native, Flask, Express JS, Hardhat, Foundry, TheGraph, IPFS, Ethers.js, OpenZeppelin, Chainlink, Docker, RabbitMQ, Nginx, Jenkins, Git, PostgreSQL, MongoDB, Firebase, PIC Microcontroller, JIRA

### **Education**

**BASc Electrical Engineering,** *University of Ottawa* ☑ *Specialization in Control Systems Engineering.* 

09/2017 - 04/2023 | Ottawa, Canada

# **Professional Experience**

**Software Developer,** CNTautomation Inc.

09/2021 - 12/2021 | Ayr, Canada

- Developed internal company tools, to increase the quality of product ad's, and made it simpler for the owner to track orders and ship products.
- Developed with **Flask**, **ES6**, and used **Nginx** as a reverse proxy. Deployed on an **AWS Lightsail** instance using **Docker/Docker Compose**. Managed domains on **Route 53** and images on **S3** with **Cloudfront**.

**QA Engineer,** *NetExperience* □

01/2021 - 08/2021 | Ottawa, Canada

- Created regression tests for the first WLAN software service compatible with Open WiFi.
- Developed tests to apply custom configurations to access points and connect numerous emulated WiFi clients that executed TCP/UDP traffic.
- Designed end-to-end **Pytest/Selenium** tests to verify the application of access point configurations through the front-end web application.
- Utilized **Docker** and **Jenkins** to deploy automation scripts to multiple nodes for test execution.

### **Projects**

**Arber** ☑ 09/2022 – present

White Paper ☑

- A DAO for facilitating trustless ERC20 donations on the Ethereum Blockchain.
- Integrates **Kleros** ☑ (decentralized dispute resolution) which holds fundraisers accountable to complete their mission statement at the expense that they lose their donations.
- Smart Contracts developed with **Solidity,** and frontend created with **React.** Uses **TheGraph** for complex queries, and **IPFS** for storing documents and frontend build. Uses **Hardhat** for integration tests, and **Foundry** for unit/fuzz tests.

**EventQR** ☑ 11/2022 – 02/2023

- Developed a QR code scanning application for uOttaHack 2023 which tracked food consumption, and raffle tickets for 500 hackers.
- Created CLI tool with python for initializing QR codes, and a React Native application which connected to a
  Firestore Database.

## Apollo Rehabilitation Glove 🛭

09/2022 - 12/2022

Demo ☑

- Developed rehabilitation glove for stroke patients with real-time hand position interface.
- Used **Arduino** and **RPi** to collect sensor data, compute hand position, and transmit over web socket's to the users frontend via **nodejs** runtime. Stored persistent data using **Mongoose** ODM, and **MongoDB.**

DigiMarkets ☑ 01/2022 – 04/2022

Demo ☑

• NFT browser application developed with NextJS, Flask, Moralis, Docker.