

# Benoît JEAUROND

[jeaurond.dev](https://jeaurond.dev) 

[@BenJeau](https://twitter.com/BenJeau) 

[@benoit-jeaurond](https://www.linkedin.com/in/benoit-jeaurond) 

[benoit@jeaurond.dev](mailto:benoit@jeaurond.dev) 

Software Engineer with an interest in low-level technologies, mobile, and AI



## EXPERIENCE

- Full Stack Software Developer** | Bell Canada — Ottawa, ON  
March 2023 - Now
  - Brought a new near real-time email phishing analysis platform to production analyzing emails, attachments, and URLs using a mix of **Python/Django** microservices scoring emails on a phishing scale
  - Facilitated inter-team decisions and talks while appeasing predominant concerns efficiently
  - Refactored multiple parts of the email analysis pipeline, learning the intricacies of **email** structures/parsing
- Threat Detection Specialist** | Bell Canada — Ottawa, ON  
Jan 2022 - March 2023
  - Worked on Windows Sysmon, Netflow, and email **machine learning** models using PySpark and Cloudera
  - Built multiple TypeScript **React web applications** to ease jobs of threat analysts, such as a platform to manage indicators of compromise, get enriched data, and be able to create dynamic rules
  - Migrated Python app to **Rust** using **Axum/Tonic** with testing and achieved a 100x performance improvement
  - Setup real time alerting with **ElastAlert** alongside **Python** scripts correlating data from various sources (Kafka, Elasticsearch, Impala, S3, REST APIs) to several destinations (email, wiki, messaging platform, Kafka, Logstash)
  - Managed **ELK** (Elasticsearch, Logstash, Kibana) stack ecosystem and created related **Kibana** visualizations
- Software Developer** | Cision Canada — Ottawa, ON  
May - Aug 2021
  - Developed **Java** features and fixed bugs related to **Elasticsearch** news article and social media ingestion
  - Added features to internal Apache **Kafka** tools, such as an interactive UI and SSL support
  - Created process to deploy application streams to QA and production **Spring Cloud Dataflow** (SCDF)
  - Automated SCDF stream updates, application registration and deployment, as well as Docker image management in AWS Elastic Container Registry from **Atlassian Bamboo**
- Software Developer** | Innovation, Science and Economic Development Canada — Ottawa, ON  
May - Dec 2020
  - Developed features for a work social media platform in **JavaScript** using **React** with an **express.js** backend
  - Implemented **Jest** testing, **SwaggerUI** documentation, and multilingual database structure for the backend
  - Improved **stability** and **performance** of the overall application by cleaning up the whole codebase
  - Created **Github Actions** and **Openshift/Kubernetes** templates for server deployments with **Jenkins** integration
- Software Developer** | Ario Platform — Ottawa, ON  
Sept - Dec 2019
  - Developed features for the platform in **Ruby on Rails** and **Angular** using **Test Driven Development**
  - Improved **performance** and **security** of file downloads and uploads of the platform related to **AWS S3**
  - Worked on a **encrypted** file transfer and database attributes in Ruby and Ruby on Rails respectively
  - Created **background jobs** to make **asynchronous** processes, that were previously synchronous
- Software Developer** | Innovation, Science and Economic Development Canada — Ottawa, ON  
Jan - Apr 2019
  - Developed a **React Native** application to ease the time management for students
  - Integrated **Google Calendar** as our calendar/events database and used it to compare schedules
  - Added **Firebase** to send notifications between users and to collect information about the users
  - Integrated the CI/CD for our application with **CircleCI** (building, testing, linting, and deployment)



## EDUCATION

**Bachelor of Applied Science, Software Engineering (CO-OP)** | University of Ottawa CGPA: **9.47/10**

Earned the **Chancellor's Scholarship**, Dean's Excellence, and Award Nortel Founding Scholarship for the SITE

### CAPSTONE PROJECT

Developed for **Bell Canada** a pre-ransomware detection Python service using **machine learning** with **PySpark** Random Forests, receiving Sysmon logs from Kafka, and monitoring with a mix of Grafana, Kibana, and Jaeger

### ENGINEERING TEAMS

Member of uOttawa's Robobat Team for **3 years**, was the **team and software lead** leading meetings, organizing tasks, following up with members, and working on my assigned tasks. Also, worked on image detection of buoys using ROS, OpenCV, and Tensorflow in Python.

Member of uOttawa's Mars Rover Team, worked on organizing the software team using my background from Roboboat, created React dashboard to monitor and control the rover using ROSLib.js, and integrated IMU in the map generation

### HACKATHONS

Organized and volunteered at the **CANDEV data challenge** for Statistics Canada

Attended two **uOttHack** Hackathons, creating a mobile game with OpenGL and mobile hospital kiosk applications using Firebase



## PROJECTS

### INDICATOR AGGREGATOR [portfolio](#) [Github](#)

Programmed a centralized platform for requesting data from various information sources in real-time with **Rust** and **TypeScript** having a React frontend and an Axum/Rust REST backend API

Supports Rust, **Python**, and **JavaScript** as sources, with the latter two being dynamically created while all having the ability for rate-limiting, caching, block lists, background tasks, secret management

### EMAIL THING

Programmed a **real-time email analysis** web application using a monolith **Rust** backend which correlates data with Indicator Aggregator allowing for performant ingestion (~50ms) and stats about ingested emails

### REQWEST UI [portfolio](#) [Github](#)

Built a simple **Tauri**-based HTTP client with a React frontend in **TypeScript** and a **Rust** backend with reqwest

### DRAW AWAY

Built a real-time drawing game, similar to Jackbox, with a **Rust** backend, a **React Native** and **React** frontend  
Created two **open source** NPM packages, an inspection tool to debug front-end state management Recoil.js library and a data-driven SVG based React Native drawing component  
Deployed using horizontally scalable backend microservices on **Kubernetes** in DigitalOcean

### CLUE NOTES [portfolio](#) [Github](#)

Created **7MB** React Native application deployed in the Google Play Store for users to take notes of their game

### CAT FEEDER [portfolio](#)

Developed a React Native application interfacing with **Firebase** and **Arduino** controlling a cat feeder

### REACT NATIVE VISUAL SCRIPTING [portfolio](#)

Developed a fast **Rust** based React Native project creator, converting data to functioning React Native mobile application (including React components and React Navigation screens and navigators)

**References available upon request**