

# Ryan Baker

Calgary, AB | 403-581-3162 | [ryanwbaker87@gmail.com](mailto:ryanwbaker87@gmail.com) | <https://ryanwbaker.github.io/portfolio/index.html> | <https://www.linkedin.com/in/rwbaker87/>

## Professional Summary

- Electrical and software engineering graduate (APEGA Member-In-Training status) focused on software development and system design/improvement.
- Scripting and application development in Python (4 post-secondary classes, 1 production project), JavaScript (1 production project, personal projects), C/C++ (6 post-secondary classes, personal projects), SQL (1 production project, maintain 2 commercial databases, personal projects), and VBA (improved efficiency in at least 5 regular work tasks).
- Artificial intelligence and deep learning experience in Python/R (Scikit-learn, FastAI, PyTorch, and TensorFlow/keras libraries).
- Full stack software development experience with Python Django, Python Flask, node/express, jQuery, docker, bootstrap, PostgreSQL, GitHub, and AWS.

## Work Experience

### Lead Software Developer

*Equusense*

**Jan 2021 – Present**

*Calgary, AB*

- Became a [startup](#) from a university project. After one year of development, the team won [three awards](#) and made [Global Calgary News](#).
- Constructed first web API prototype with Python Flask framework in less than three months.
- Incorporated Flask Jinja templates for a fast, production SPA user interface with JavaScript Plotly, making front end development 2x faster for MVP prototype (vs. separate front end) and allowing code reuse.
- Implemented Test Driven Development for second iteration of back end (Python Django).
- Created auto-generation of API documentation through DRF-spectacular library, making creation of API documentation at least 3x faster and less work to maintain.
- Implemented admin panel controls for code-less management of users and data, reducing the amount of involvement of software engineers for operations by 100%.
- Built token authentication into API from UI and hardware communications, enabling secure device and streamlining the integration process; tested on one transmitter, three UIs, and all common browsers.
- Deployed project to AWS with three Docker containers (app, NGINX server, PostgreSQL database) for easy maintenance.

### Business Systems Specialist – Accounts Receivable, IT, and Payroll

*Quick Way Electrical*

**Jul 2015 – Present**

*Medicine Hat, AB*

- Spearheaded implementation of Sage 100 Contractor; a company-wide enterprise resource planning software for small-to-medium sized construction companies. Total time: 14 months (including research). Estimated \$100,000 cost savings/year.
- Prevented \$10,000/day downtime expense for two weeks by coordinating a server upgrade.
- Saved the company \$8,000/year and improved employee satisfaction by changing benefits programs.
- Led a [parts website](#) development with a custom search algorithm, daily automatic updates and \$0 recurring costs, resulting in a 100% improvement in billing efficiency.
- Reduced payroll processing time from 4 days/cycle to 2 hours/cycle through scripting and process improvements.

### Student Researcher

*University of Calgary*

**May 2022 – May 2023**

*Calgary, AB*

- Executed proof-of-concept design of low power microwaves to measure hydration in livestock; potential to eradicate leading cause of death in young livestock (dehydration).
- Incorporated Python and R to fit microwave signal measurements to mathematical dielectric models such as the [Cole-Cole](#) equation (rough draft of paper available for request).

# Ryan Baker

Calgary, AB | 403-581-3162 | [ryanwbaker87@gmail.com](mailto:ryanwbaker87@gmail.com) | <https://ryanwbaker.github.io/portfolio/index.html> | <https://www.linkedin.com/in/rwbaker87/>

## Junior Accountant

**Jun 2012 – Jul 2015**

*Goodyear Canada Manufacturing Plant*

*Medicine Hat, AB*

- Audited 50 jobs, developed “Standard Work” documents and recommended improvements.
- Reduced eight hour/day workload to two hours/day with VBA scripting/spreadsheets and process improvement. Further improved efficiency of other positions and operations with extra time.
- Processed weekly payroll for ~300 employees with zero missed pay cheques.
- **Temp Continuous Improvement Officer (four months):** envisioned and completed efficiency improvement and cost savings projects throughout the plant (est. \$300,000/year cost savings).
- **Temp Plant Scheduler (five weeks):** Prevented a plant shutdown by quickly learning and filling in for this position after an employee suddenly passed away.

## Education

### Master of Engineering, Software Engineering

**May 2024 – May 2025**

*University of Calgary*

*Calgary, AB*

### Bachelor of Science in Electrical Engineering, Software Minor

**Sep 2019 – May 2023**

*University of Calgary*

*Calgary, AB*

### Electrical and Computer Engineering Technology (Year 1)

**Sep 2017 – Jun 2018**

*British Columbia Institute of Technology*

*Burnaby, BC*

### Master of Business Administration, Specialism in Strategic Planning

**Sep 2012 – Aug 2017**

*Correspondence: Edinburgh Business School (Heriot-Watt University)*

*Edinburgh, Scotland*