Ryan Baker

Calgary, AB | 403-581-3162 | https://ryanwbaker.github.io/portfolio/index.html | ryanwbaker87@gmail.com | 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).

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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

Bachelor of Science in Electrical Engineering, Digital 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*