

Ryan Baker

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

Highlights of Qualifications

- Recent electrical engineering graduate pending APEGA M.I.T. (Member In Training) status.
- Diversely experienced with electrical engineering applications, including electronics, electrical design, electrical contracting, computer engineering, and research.
- 2D and 3D CAD experience with AutoCAD, Fusion 360, and Solidworks (isometric and 3D modeling).
- Experience in technical, operations, administration, and high level aspects of electrical contracting.
- Accounting experience with Sage 50, Sage 100 Contractor, and SAP.
- Exceptional knowledge of Microsoft Office (Word, Excel, Powerpoint, Outlook).
- Experience with scripting and application development in Python, JavaScript, C, SQL, and Excel VBA.
- Artificial intelligence and deep learning experience in Python (scikit-learn, FastAI, PyTorch, and TensorFlow/keras libraries).
- Developed a full stack software solution for a 'smart watch for horses' engineering capstone project and startup using Python Django, docker, PostgreSQL, GitHub, and AWS.
- Well rounded education (also educated with an MBA in Strategic Planning and B.Sc.Kinesiology).
- Successfully completed many self-inspired projects (see the header for a portfolio link).
- Self motivated, passionate learner, works well independently or with others, and has leadership experience.

Education

Bachelor of Science in Electrical Engineering, Digital Minor
University of Calgary

Graduated May 2023
Calgary, AB

Electrical and Computer Engineering Technology (Year 1)
British Columbia Institute of Technology

Completed April 2018
Burnaby, BC

Master of Business Administration, Specialism in Strategic Planning
Correspondence: Edinburgh Business School (Heriot-Watt University)

Graduated May 2017
Edinburgh, Scotland

General Studies
Medicine Hat College

2011, 2012
Medicine Hat, AB

Bachelor of Science in Kinesiology
University of Alberta

Graduated June 2010
Edmonton, AB

Work Experience

Lead Software Developer
Equusense

January 2021 - Present
Calgary, AB

- Started as a university project and became a startup.
- Won several awards and made Global Calgary News.

Significant Accomplishments

- Developed first web API prototype with Python Flask framework.
- Used Jinja template in Flask framework to develop a SPA user interface prototype with plotly.js library.
- Implemented Test Driven Development for second iteration of back end (Python Django).
- Created auto-generation of API documentation through drf-spectacular library.
- Implemented admin panel controls for codeless management of users and data.
- Implemented token authentication for user interface and hardware communications via web API.
- Deployed project to AWS and segregated project into Docker containers for easy maintenance.

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Student Researcher
University of Calgary

May 2022 - Present
Calgary, AB

Significant Accomplishments

- Used low power microwaves to measure hydration (application: hydration monitoring in livestock).
- Used Python and R to process microwave measurements to data visualizations and fit to mathematical dielectric models such as the [Cole-Cole](#) equation (rough draft of paper available for request).

Office Manager – Accounts Receivable, IT, and Payroll
Quick Way Electrical (1999) Ltd.

June 2015 – Present
Medicine Hat, AB

Regular Duties (while enrolled in full time university studies):

- Manage revenue for large contract projects (some projects over \$1,000,000).
- Manage payroll for 90+ employees.
- Troubleshoot and maintain all company computers (usually remotely).
- Continuously refine five-year business plan and company strategies with owners.

Significant Accomplishments

- Spearheaded implementation of Sage 100 Contractor; a company-wide enterprise resource planning software that manages all aspects of a small-to-medium sized construction company.
 - o Total time: 14 months (including research and assessment of various softwares).
 - o Estimated overhead cost savings/year: \$100,000.
- Prevented \$10,000/day downtime expense for two weeks by coordinating a server upgrade (with consultants).
- Changed health benefits programs; saved the company \$8,000/year and improved employee satisfaction.
- Six months after hire, managed the entire company for three weeks while the owners were away.

Junior Accountant
Goodyear Canada Manufacturing Plant

July 2012 – June 2015
Medicine Hat, AB

- Originally hired for the Manufacturing Leadership Development Program (“MLDP”)
 - o Audited 50 positions, developed “Standard Work” documents and recommended improvements.
- Reduced an eight hour/day workload to two hours/day with a macro spreadsheet system. The extra time was used to further improve efficiency of other positions and operations.
- Processed payroll for ~300 employees with zero missed paycheques.
- Trusted to fill in for two high-responsibility positions for extended periods of time:
 - o **Continuous Improvement Officer (four months):** motivated employees to work on improvement projects by being positive and rewarding top performers.
 - o **Plant Scheduler (five weeks):** Prevented a plant shutdown by quickly learning and filling in for this position after an employee suddenly passed away.

Apprentice Electrician
Quick Way Electrical (1999) Ltd.

May – August 2009, 2008, 2007, 2006, 2005, 2004, 2003
Medicine Hat, AB

- Assisted with commercial/residential wiring on job sites, delivered supplies, and reorganized electrical inventory according to use/function.

Hobbies/Interests

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|---------------------------------------|---------------|---------------|
| • Electronics (Arduino, raspberry pi) | • Photography | • 3D Printing |
| • DIY and home renovations/repairs | • Movies/TV | • Computers |
| • Cooking | • Fitness | • Golf |