Brodie Gould

github.com/brodiegould | linkedin.com/in/brodie-gould | brodiegould.github.io | Victoria, BC | abrodeig@gmail.com

EDUCATION

Bachelor of Electrical Engineering (4ᵗʰ year) (A- Current Average) *Jan 2021-April 2023*

University of Victoria, Victoria, BC

- Past coursework includes Applied Cryptography, Blockchain Technologies, Artificial Intelligence, Mechatronics, Communication Networks, Numerical Analysis, Microprocessor-based systems and the Engineering Capstone Project.

Electrical & Computer Engineering Bridge to UVic – Advanced Diploma (A- Average) *Jan 2020-Dec 2020*

Camosun College, Victoria BC

- Past coursework includes Data Structures & Applications, Programming for Engineers, Discrete Structures in Engineering and Probability & Statistics

Electrical Engineering Technology – Advanced Diploma (A- Average) *Sept 2015-Sept 2018*

Georgian College, Barrie ON

- Past coursework includes Applied Statistics, Project Management, Networking, and Advanced PLC's

EXPERIENCE

Junior Engineer, Co-op *Sep 2022 – Dec 2022*

Innovation, Science and Economic Development Canada (ISED), Government of Canada, Ottawa ON (Remote)

- Led a R&D initiative for a cybersecurity proof of concept, using **Docker**, **AWS**, and **Open Source Software**
- Conducted cybersecurity research in software supply chain, cloud infrastructure, ransomware and blockchain to help guide division initiatives; reporting in a monthly 2-page newsletter
- Assisted a public-private forum of 25+ members to develop risk management practices for cybersecurity and internet resilience; and help Canada plan for disruptive technologies

Electrical Design Technologist, Consultant *Nov 2018 – Dec 2019*

RF Binnie & Associates, Burnaby BC

- Mediated 20+ construction projects between customers, suppliers, engineers and contractors
- Created project build packages and instruction drawings for construction, bidding and project management, with projects ranging from $50,000 - $3,000,000
- Performed data analysis, modelling a pump stations behavior to provide operation recommendations
- Led a pump station repair project, saving $300,000+ by scheduling labour and equipment reuse

PROJECTS

- **Co-lead software engineer, Differential Cryptanalysis Attack (UVic)** *April 2022*
  - Co developed and wrote a cryptanalysis attack to successfully recover a secret key from a 16-bit private-key cryptography scheme similar to AES in under 5000 iterations, using **Python**

- **Lead software engineer, Sealed Envelope Auction Smart Contract (UVic)** *July 2022*
  - Designed and implemented code for a sealed envelope smart contract utilizing cryptography to disguise transactions; programmed in **Solidity**

- **Web Development, Personal Website and School Project Websites**
  - Style and build personal and school websites using **HTML**, **CSS** and **Bootstrap** *Ongoing*

SKILLS

Proficient:
C, CSS, HTML, Python, Excel

Semi-Proficient:
AWS, Bootstrap, Bash C++, Docker, Git, Linux/Unix, MATLAB, R, Solidity, SQL

ACTIVITIES AND INTERESTS

- Active member in the University of Victoria's Financial Investment Group, with routine meetings to analyze companies; and the Cryptocurrency Group, discussing new technology
- In my spare time I enjoy reading, running, bouldering, travelling, and time spent outside