zdorward@ualberta.ca
+1 (780) 566-5456

Zack Dorward

zackdorward.com

LinkedIn
Github

EDUCATION

University of Alberta   Expected May 2025
BSc Computer Software Engineering Co-op   GPA: 3.5

Notable coursework: Algorithms & Data Structures 1 – **A** (Python), Algorithms and Data Structures 2 – **A-** (C++), Object Oriented Software Design – **A** (Java), File & Database Management – **A** (SQL)

EXPERIENCE

Darkhorse Analytics   Jan 2023 – Aug 2023
Software Engineer Intern   Edmonton, AB
- Collaborated on a project that presents data on various health metrics across 6 US States using **Vue** and **Typescript,** winning Silver at the Anthem Awards for Best Use of Data.
- Developed **Python** scripts to streamline the loading of client data into multiple applications, reducing data processing time by 95%.
- Led the development of key features for a **Mapbox** project using **Vue, Typescript,** and **Nuxt.js** including interactive charts and visualizations with **D3.js**.
- Participated in Scrum meetings with various stakeholders and applied Agile development methodologies.

City of Edmonton   May 2021 – Dec 2021
Data Analyst Intern   Edmonton, AB
- Developed 13 regional maps for snowplow route optimization in Edmonton using **Python** and **ArcGIS Pro**.
- Led the procurement of 2 contracts with the City each exceeding a total spend of $1,000,000, leveraging analytical skills to identify cost-saving opportunities and enhance operational efficiency.

PROJECTS

Equity Explorer | *Python, Flask, JavaScript, Pandas, Plotly*
- Developed a full-stack web application serving a REST API to retrieve and analyze real-time stock market data.
- Leveraged various Python libraries to scrape, fetch, and visualize information, integrating external APIs for data retrieval and manipulation.

Mindshift | *JavaScript, Plotly*
- Developed a Chrome extension to modify screen brightness based on real-time EEG data.
- Employed data analysis techniques to monitor, clean, and manipulate data read from a hardware device utilizing the fft-js library.

Asset Armor | *Android Studio – Java, XML, Gradle*
- Led a team of 6 in developing an app that supports item tracking, barcode scanning, authentication, etc.
- Utilized integration testing with Junit and Espresso.

Twitter CLI | *Python, SQL*
- Developed a twitter-like CLI to authenticate users, write tweets, retweet, follow users, and search.

SKILLS

Languages: Python, Typescript, JavaScript, SQL, Java, C, C++,
Libraries & Frameworks: React.js, Vue.js, Pandas, Matplotlib, NumPy, Plotly, Flask, Django, D3.js, Node.js, Express.js Firebase, MongoDB, Flutter, AWS

LEADERSHIP

Merchandise Coordinator, Engineering Students' Society   May 2023 - Present
- Order, coordinate, and sell engineering merchandise at the University of Alberta.

Vice President of Internal Affairs, Engineering Students' Society   May 2021 - May 2023
- Elected to oversee 100+ club volunteers and led a team of 5 directors who controlled recruitment, human resources, merchandise, operations, and first year students.