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Zack Dorward

[zackdorward.com](https://zackdorward.com)

[LinkedIn](#)

[Github](#)

## EDUCATION

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### University of Alberta

BSc Computer Software Engineering Co-op

Expected May 2025

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

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### Darkhorse Analytics

Software Engineer Intern

Jan 2023 – Aug 2023

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%.
- Developed key features for a **Mapbox** [project](#) that measures wellbeing across the USA using **Vue**, **Typescript**, and **Nuxt.js**, including interactive charts with **D3.js**.
- Participated in Scrum meetings with various stakeholders and applied Agile development methodologies.

### City of Edmonton

Data Analyst Intern

May 2021 – Dec 2021

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

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### [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

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**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

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### 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.