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Zack Dorward  
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## EDUCATION

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**University of Alberta**  
BSc Computer Software Engineering

Expected May 2025  
GPA: 3.5

Notable coursework: Tangible Computing 1 – **Python** (A), Tangible Computing 2 – **C++** (A-), Object Oriented Software Design – **Java** (A)

## WORK EXPERIENCE

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**Software Engineer Intern**, *Darkhorse Analytics* – Edmonton, AB Jan 2023 – Aug 2023

- Collaborated on the [Phoenix Health Dashboard](#) frontend using **Vue** and **Typescript**. Built the intro screen, data filters panel, map layers panel, and fixed bugs across the site.
- Led the development of features on [AEPHIN Facilities](#), including the intro panel, the home community panel, and map tooltips using **Vue** and **Typescript**. Wrote **Python** scripts to load client data into frontend of the site.
- Developed the mobile version of the American Academy of Arts and Sciences website using **Vue**, **Typescript** and **Nuxt.js**. Created Vue components using **Storybook**.

**Data Analyst Intern**, *City of Edmonton* – Edmonton, AB May 2021 – Dec 2021

- Used **Python** and **ArcGIS Pro** to develop maps used for snowplow removal in Edmonton.
- Participated in the development of two procurement contracts with the City.

## PROJECTS

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**Alouette**, *Western Engineering Competition* | [Github](#) Jan 2023

- Represented the University of Alberta after receiving 1st place at the University of Alberta Engineering Competition in programming.
- Developed an educational wildlife game using **Vue**, and a subsequent quiz to assess learning using **React**, earning 3rd place overall.

**Mindshift**, *nathACKS* | [Github](#) Jul 2022

- Built a Chrome extension with **JavaScript** that connected to a smart headband via Bluetooth and dimmed the computer screen as the user got tired.
- Analyzed and processed brain wave data read through the headband to determine the alertness of the user.

**Pythons on a Plane**, *Hacked* | [Github](#) Jan 2022

- Developed an animated 2D desktop game like jetpack joyride using Pygame, a cross-platform set of **Python** modules.
- Implemented complex in-game graphics, animations, sounds, and physics for player and enemy objects, and designed a backend database to store all-time leaderboard using **Firestore**.

**LaunchPad Employees**, *Personal Project* | [Github](#) Jan 2019 - Dec 2019

- Developed a cross-platform mobile application to handle employee scheduling using **Dart** and **Flutter**, with a backend database to store employee credentials using **Firestore**.
- Uploaded to the Apple App Store and the Google Play Store ([link](#)).

## VOLUNTEERING/EXTRACURRICULARS

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**Merchandise Coordinator**, Engineering Students' Society May 2023 - Present

- Orders, coordinates, and sells 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.

## SKILLS

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**Languages:** Typescript, JavaScript, Python, Java, C++, SQL

**Frameworks & Technologies:** Vue.js, Nuxt.js, React.js, Flutter, Express.js, Node.js, MongoDB, Git, Linux, AWS