# ALEXANDER CHAO

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#### **EDUCATION**

# University of Calgary • Calgary, AB

Sept 2017 – May 2023

- Bachelor of Science Majoring in Computer Science.
- Undergraduate Coursework: Human Robot Interaction, Operating Systems, Databases, Algorithms, Web-Based Systems, Intro to Software Engineering, Human-Computer Interaction I & II, Calculus II.

# **Languages and Technologies**

- JavaScript, React.js, Next.js, SASS, TypeScript, Node.js, C#, C, C++, Bootstrap, DAX, Python, Java
- Visual Studio, Eclipse, Git, Power BI, Power Query, Google Analytics, Google Tag Manager, Looker Studio, AWS Secret Manager, AWS Lambda, AWS CloudFormation, AWS Gateway, AWS RDS, AWS DynamoDB

#### **EMPLOYMENT**

## **Nutrien •** Co-op, IT Digital Delivery

Jan – Dec 2022

#### **KPI SharePoint Site**

- Developed a KPI SharePoint site application to track usage metrics for both developer and client applications, allowing Product Owners and Directors to use the usage metrics for meetings.
- Programmed Google Analytics tagging in TypeScript React for both developer and client applications to capture usage data for the KPI SharePoint site.
- Assembled visual reports using Power BI to display Google Analytics data to track applications performance, providing easily accessible visual reports for Product Owners and Directors to quickly use in meetings.

# **Customer and Sales Application**

- Kick started and presented two completed proofs of concepts for the feasibility and roadmap planning regarding Google Analytics 4 upgrade and Google Tag Manager integration.
- Programmed on front-end enhancements ticket in TypeScript React within a scrum agile sprint team.

#### **Projects**

## The Emoji Button • github.com/AlexanderChao14/Memory-Test-JS

2021

 Developed a fun memory game that utilizes Emojis moving across the screen using HTML5, CSS, and JavaScript.

## Maze To Unlock • github.com/AlexanderChao14/MazeUnlock

2021

• Designed an alternative way of unlocking a smart phone utilizing JavaScript, Python, and machine learning to recognize head movements to unlock the phone.

# Sling Shot To Unlock • github.com/AlexanderChao14/SlingShotToUnlock

2021

Devised a novel to unlock your phone utilizing a slingshot and React.js.

## **OurSpace** • https://github.com/AlexanderChao14/Proximity-Chat

2021

Conceptualized a new way of simulating chatting in a physical room through an online chat room in React.js.
Battleship Game • github.com/AlexanderChao14/SENG-513

 Reconstructed the classic game of Battleship using React.js and AWS Lambda, enabling online multiplayer battle.

# Animal Rescue Website • github.com/AlexanderChao14/AnimalShelterDatabase

2019

 Engineered a web-based interface for managing an Animal Rescue shelter, with a PHP front-end and SQL backend for efficient data management.

## **TECHNICAL ADDITIONAL EXPERIENCE**

- Calgary Hacks 2021: Created a Zoom meeting auto launcher within 24 hours remotely to allow students to upload their course schedule and auto launch the meetings from the schedule using Java and Python.
- Calgary Hacks 2020: Designed a video recommendation application for university students, related to their classes, within 24 hours using HTML5, CSS, Python, and Flask.
- Taekwondo 2013 2017: Assisted in coaching taekwondo to children with a wide range of skills levels.
- EquaLearn 2016 2017: Taught one-on-one tutoring to primary school students from low-income families.