# KILEY CARSON

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#### **EDUCATION**

# University of Calgary, Calgary, AB

May 2022

Degree: Bachelor of Science (Hons) in Computer Science with a Concentration in Information Security, and a Minor in Management and Society (Business)

GPA: 3.5/4.0

Relevant Coursework: Data Structures, Algorithms and Analysis (A); Computer Security (A+); Software ENG (A)

### **TECH SKILLS**

Programming: Java, Python, SQL, HTML, CSS, React, ASP.NET

Software Development: Design Patterns, Writing Unit Tests and Optimizing Performance in Application Data Engineering: Relational Databases Architecture, Algorithms, Data Structures, Cloud Applications.

Data Analytics: Mathematics and Statistical Analysis

OS & Other Tools: Windows, iOS, Linux, Unix, API Gateway, API Security, API Developer Portal

#### **WORK EXPERIENCE**

## ATB Financial, Calgary, AB

May 2021 - Present

Full Stack Developer

- Developed software solutions and created a demo API developer portal using Drupal to make it compatible with Apigee and other software products
- Created an API programming interface that forms the base of apps dealing with data and launched API tests using Node.js to ensure there are bugs or errors
- Integrated API developer portal using SASS to accelerate software development production timeline by 5%
- Launched new APIs and deleted 30% of legacy non-prod proxies & associated apps, and prepared for a migration to test the functionality of 4 API products & apps using Apigee
- Designed a demo of a front-end application using React to test API functionality and achieved a great customer satisfaction rate

Advanced Skills: Software Development, API, React, Node.js, Drupal, JavaScript, HTML, CSS, Apigee, GCP

# **GEOSLOPE International Ltd**, Calgary, AB

May 2019 - Aug 2019

Student Programmer

- Developed website functionality using C#, ASP.Net, CSS, and JavaScript to launch updates and new features
- Integrated multiple systems together using APIs and 3rd party frameworks, and 3-party applications
- Researched C++ and NUnit Testing Framework to determine usability in the software testing strategy
- Designed and created interactive dashboards using Power BI and Dynamics 365 to perform data analysis and support efforts of the financial management department

Advanced Skills: Software Development, JavaScript, C++, C#, ASP.Net, CSS, API, Power BI, Dynamics 365

#### **PROJECTS**

Reservation System (Skills: Java, CSS, JavaFx)

- Developed a reservation system interface using Java and JavaFX to allow users to complete reservations
- Added password functionality to provide a secure and user-friendly environment

Honours Research Project: A Security Enhancement to the FIDO2 Protocol (Skills: React, CSS, Security, Research)

- Researched FIDO2 protocol, its cryptographic building blocks (subprotocols CTAP2 and WebAuthn), and it's
  security model and proof in order to design a modified protocol that is more secure than both passwordless
  authentication, and password-authentication with a multifactor component
- Designed and developed a simulation of the security enhancement to the CTAP2 FIDO2 Protocol to demonstrate both the concept and usability

# **AIM Random Number Generator** (Skills: React, CSS, Algorithm Design)

• Designed an 'aim-trainer game' web application that uses a Linear Congruential algorithmic to generates randomness from a users mouse movements

 Created a front-end fully using react.js that allows users to click targets before they disappear while following proper iterative development practices

### LEADERSHIP EXPERIENCE

# Google Developer Group (GDG) Calgary Cloud, Calgary, AB

Jun 2018 - Present

Co-organized, Community Platforms

- Spearheaded the initiative as the Women Techmakers' Ambassador promoting Diversity and Inclusion projects to support and empower women in technical industries
- Organized and executed events for 300 attendees by collaborating with Calgary's Google enthusiasts, non-profit organizations, students and professionals in the tech space to learn and share the information
- Drafted and distributed event announcements to 1000+ members

# University of Calgary Developer Student Club, Calgary, AB

Jun 2019 - Oct 2020

Founder, Lead

- Selected by Google to be in the first cohort of 25 clubs in Canada to cultivate new campus programs, events, and initiatives
- Led initiatives of the club and supervised the affairs of the executive council to build partnerships with the Student Union and University organizations
- Facilitated relations with faculty members and university organizations to plan and execute 5 events for 75+ attendees each providing students with transferable knowledge to use in academic and business endeavours
- Registered the organization with the Student Union and documented procedures to assist a successful transition of leadership

### **VOLUNTEER EXPERIENCE**

## Student Union Wellness Center, Calgary, AB

Sep 2017 - Sep 2019

Peer Support Volunteer

- Awarded the "Peer Helper of the Year" for exceptional dedication to building a supportive campus community
- Advocated for positive mental well-being to strengthen the campus community and provide support for University of Calgary students
- Organized the process of onboarding for students entering the Center and demonstrated the use of materials and tools for recreational activities
- Promoted interest in activities and responded to requests to engage in activities with students and develop strong peer relationships

### **ACHIEVEMENTS & AWARDS**

**Recognitions for Academic Achievements:** Lockhart Family Scholarship for Computer Science, Tuition Reinvestment Bursary, Jason Lang Scholarship, Alexander Rutherford Scholarship, Dean's List '18-'19, Dean's List '20-'21

**Diversity, Equity, and Inclusion Awards:** Computer Science Award for impact on diversity, demonstrated leadership, and academic background (Women Techmakers Scholars Program)