CHACE NIELSON

Software Engineer | React, Python, Unity, C++

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About Me

I am a Software Engineer with a passion for music and the outdoors. From Web Design to Unity Games and full-stack development to machine learning, I'm driven to make a positive impact through my work.

Experience

Alberta Tomorrow - Software Developer

Contributed to the development of a web application that leverages interactive maps, data visualization, and gamification to promote sustainable land use in Alberta and BC.

- Enhanced visualization and analysis tools for land use scenarios
- Enhanced interactive mapping with MapboxGL API integration
- Coordinated with stakeholders to align project goals with objectives

Jan 2024 – Current

- Vue
- CSS
- Responsive Design
- AWS

Glass Gecko Games – Game/Web Developer

Developed games and contributed to web design and marketing strategies.

- Led the development and launch of the company website
- Collaborated with multidisciplinary teams on various projects
- Participated in planning, marketing, and design meetings

May 2024 – Current

- Unity/C#
- React
- Tailwind

UofC Geothermal Center – Lead Software Developer

May 2022 - Jan 2024

Developed a web application to simulate geothermal systems and analyze drilling data. Managed a team of engineers and developers to achieve project goals.

- Led the development of geothermal well analysis tools
- Awarded the Intern of Merit for exceptional performance
- Application used for analyzing geothermal wells in New Mexico and Germany
- Conducted code reviews and provided feedback to team members
- Interviewed candidates for new developer positions

- React
- Tailwind
- **FastAPI**
- **PostgreSQL**
- Python
- Docker
- Streamlit

Education

Bachelor of Science in Software Engineering

University of Calgary

• Schulich School of Engineering, 3.6 GPA, Graduated with Distinction

May 2024

Projects

Drillbotics — Functional Mini Drill Rig and GUI

chacenielson.com/project/drillbotics

Designed a mini drill rig and real-time GUI with the Drillbotics team at the University of Calgary, earning second place in the competition. • Python Plotly Dash

CO₂ Separation - Unity Simulation and physical Prototype

chacenielson.com/project/capstone

chacenielson.com/project/photo-app

Developed a physical prototype and simulation for a CO₂ separation and energy storage system leveraging deep ocean pressure.

• Unity/C# Blender

Voice Identification — GUI and ML App

chacenielson.com/project/voice-identification

Expanded a class project into a voice identification system and GUI, capable of uploading and analyzing voice samples with GMM and CNN algorithms.

Python

Plotly Dash

Photo App - MERN Stack Application

Developed a full-stack photo gallery application featuring user authentication and account management. React

MongoDB

Express

Node.js

Skills

Frontend

- React
- JavaScript
- **TailwindCSS**
- Responsive Design
- HTML
- CSS
- Vue

Backend

- Express
- FastAPI
- Diango
- PostgreSQL
- Node.js
- MongoDB
- REST API
- Docker
- CI/CD
- AWS

Engineering

- Git
- GitHub
- Python
- Java
- C/C++
- Hadoop
- · Apache Spark

Game Development

- Unity
- C#
- Blender

Interests

- Snowboarding
- Music
- · Rock Climbing

Volunteering

- Homes of Hope in Tijuana, Mexico
- Cochrane Eagles Basketball Association - Bow Valley High School Coach

