SIEGFRIED PESCHKE

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EDUCATION

University of Calgary
Bachelor of Science (Physics)
- Program GPA: 3.56
- Overall GPA: 3.30

STRENGTHS & SKILLS

- Research & Data Analysis
- Calculus & Statistics
- Analytical Thinking
- Technical Writing
- Strong Collaborator
- Latex
- AutoIT
- Python
- HTML
- CSS
- Java
- JavaScript
- TypeScript
- Angular
- Node.js

WORK EXPERIENCE

Rabbit Hill Snow Resort, Edmonton AB Nov 2021-Apr 2022
Lifts Operator & Snowmaker
- Ensured the safe operation and use of ski lifts while catering to positive guest experiences.
- Operate a track utility vehicle to access and maintain snow blowers across the hill.

Midwest Pipelines, Dawson Creek BC May 2021-Nov 2021
General Labour
- Performed a range of labour duties for a tie in crew whose main goal was to boom sections of pipe into a ditch, setup welders. Additionally participated in dirt backfill and cleanup duties.

University of Calgary Isotope Laboratory, Calgary AB Jan 2020 - Sept 2020
Senior Thesis & Product Developer
- Improved experimental procedure of lead isotope analysis by adjusting ion exchange procedure which resulted in 2726% reduction of lead content in control samples.
- Successfully built a thermostat; raspberry pi based measurement unit with a full GUI.

PROJECTS

Personal Coding Projects
- Designed a Book Library analogous to Netflix utilizing PrimeNG. Further implemented basic filters to search through the 1000 book dataset and the ability to find each selection on Amazon.
- Built a To Do List combined with a Calendar for a fully integrated Agenda application.
- Created a portfolio website along with basic games including Tic Tac Toe, 2048, War and BlackJack to solidify and showcase HTML, CSS and JavaScript skills.

Atmospheric Monitoring System
- A raspberry pi unit is utilized in conjunction with a barometer and particle counter to measure temperature, pressure, humidity and particle counts per mass bin.
- A server utilizing TCP sockets was built in python alongside a python GUI application to both display and manipulate data using filters and trend setting.

Determining Lead Isotopic Composition in Biological Materials
- Optimize experimental procedure for determining lead isotopic amounts of the stable lead isotopes ^{204}Pb, ^{206}Pb, ^{207}Pb, ^{208}Pb found in biological materials.
- Chemical reduction of the biological matrix followed by ion exchange for lead isotope isolation.
- Thermal ionization mass spectrometry for further analysis of isotopic composition.