SEAN McQUEEN
SOFTWARE DEVELOPER

CONTACT

Portland, OR 97213

360-553-2022

sean.m.mcqueen@gmail.com

www.sean-mcqueen.com

EDUCATION

BACHELOR OF SCIENCE | 2004-2008

PACIFIC LUTHERAN UNIVERSITY, TACOMA, WA

Major in Mathematics | Minor in Computer Science

SKILLS

LANGUAGES | SOFTWARE

- JAVASCRIPT
- PYTHON
- HTML / CSS
- NODE
- REACT
- REACT NATIVE
- DRUPAL
- GIT
- ILLUSTRATOR
- TENSORFLOW

WORK

TUTOR | 2019 - PRESENT

VARSITY TUTORS

Provide tutoring sessions online or in person. Subjects include the Calculus series, Differential Equations, Linear Algebra, Statistics, high school mathematics, JavaScript, Technology and Computer Science.

CAREGIVER | 2014 - PRESENT

L'ARCHE PORTLAND

Lived and worked in a home with adults with developmental and intellectual disabilities. Responsibilities included caregiving, building community and helping residents to achieve their goals.

DIRECT CARE INSTRUCTOR | 2013 - 2014

UP AND OUT, INC.

Worked as a caregiver for adults with intellectual and developmental disabilities. Responsibilities included providing personal care, medication management, financial assistance, cooking meals, and providing transportation.

MONK | 2011 - 2013

OUR LADY OF GUADALUPE TRAPPIST ABBEY

Lived in monastery as a novice. Participated in meditation and liturgy, and worked as a bookbinder. Other roles included groundskeeping and baking fruitcakes.

CAREGIVER | 2011

VANCOUVER, WA

Provided full time care for grandmother while she underwent cancer treatment and hospice care.

VOLUNTEER

WEB DEVELOPER | 2020

ST. PATRICK CHURCH

I am currently building a Drupal 8 website for St. Patrick Catholic Church in Portland, OR.

WORKER | 2010 - 2011

CASA JUAN DIEGO

Provided shelter, food, clothing and medical care to undocumented immigrants.

RESEARCH

RESEARCHER | 2007

POTSDAM, NY

Spent the summer at the State University of New York researching abstract algebra, classifying the group of units of particular group rings.

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HIRING TEAM
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DEAR HIRING TEAM:

I love to create software and solve challenging problems. My portfolio is full of projects and web applications that I hope you will peruse. I am looking to work with a small group of people where I can take on substantial responsibility and be pushed to become a better developer. Scan123's team seems like a great fit and I hope to contribute to its mission.

On my website there are several full stack web applications. One is a chatting app called *RadioChat* I built with ReactJS. It allows users to chat within a specified radius based on their devices' geolocation. The back end uses Node and Express to send messages and calculate the distance between clients. I also created an MVC application called *TaskMaster* that allows users to manage a to-do list. This uses MongoDB as its database and Passport for user authentication. I also use SQLite to store Greek vocabulary for a terminal based flashcard program I created.

I am currently volunteering with St. Patrick Catholic Church to build them a Drupal 8 website. The site is on a Linux server and I work on it through an SSH connection using Vim. The theme I have created uses custom PHP, HTML/CSS and JavaScript. I am proficient with JavaScript and many of the projects in my portfolio use it. The *DigitPredict* project features a neural network that I implemented in pure JavaScript. It does use TensorFlow, but only for matrix multiplication (no machine learning libraries).

Most of the projects on my website were created from scratch, but several of them have required me to modify another codebase to fit my own needs. Recently my family has been enthusiastically playing a board game called *Genius Square.* The game consists of a grid and nine polyomino (Tetris-like) pieces. Each round seven of the grid spaces are randomly blocked by pegs and the goal is to create an exact covering of the remaining grid spaces with the polyominoes. After researching algorithms, I cloned a GitHub user's Python implementation of Donald Knuth's 'Algorithm X' and rewrote parts of their code so it could be used for my own *Genius Square* solver. I put it on Heroku with a Django back end.

Most of my studies as a programmer have been independent and I am looking forward to applying my knowledge and working with a company that can help me grow as a junior developer. Joining Scan123's team would be a great opportunity and I hope we can discuss our compatibility.

Sincerely,

Sean McQueen

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APPLICATION QUESTIONS

After Covid restrictions are lifted, are you able to work at our office in Portland?

Yes, I am able and looking forward to once again working in the presence of other humans.

Generally speaking, how are many-to-many relationships modeled in SQL databases?

Many-to-many relationships are implemented with an associative table. For example, say we have two tables of questionable utility that represent musical notes and chords.
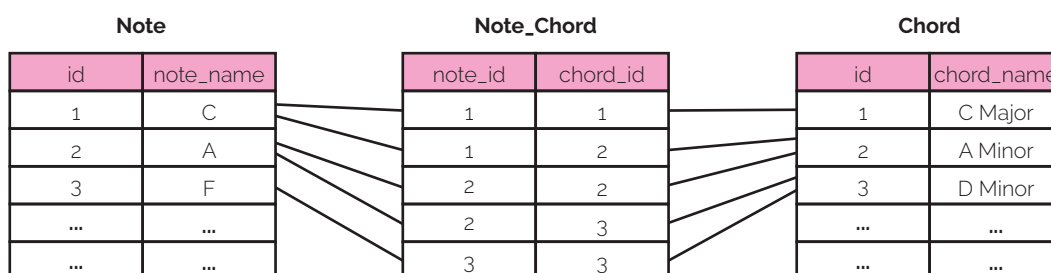
Note
id INT (Primary Key)
note_name VARCHAR

Chord
id INT (Primary Key)
chord_name VARCHAR

A value for note_name might be 'C' or 'F sharp' and a value for chord_name could be 'A major or 'B flat minor'. Every musical note belongs to many chords and every chord consists of at least three notes, so we will need a many-to-many relationship to connect them. Let's create a third table to do so.

Note_Chord
note_id INT (Foreign Key)
chord_id INT (Foreign Key)

We can now use this table to create a relationship between our first two tables.

Note

id	note_name
1	C
2	A
3	F
...	...
...	...

Note_Chord

note_id	chord_id
1	1
1	2
2	2
2	3
3	3

Chord

id	chord_name
1	C Major
2	A Minor
3	D Minor
...	...
...	...

What's your favorite Linux command?

It's a toss up between 'alias' and 'source'. I like to customize my workflow and navigate quickly, and these commands both make that happen.