

IAN MCGRATH

208-569-6810

ian.d.mcgrath92415@gmail.com

St. George, UT

[linkedin](#)

[github](#)

[portfolio](#)

SKILLS: JavaScript, Node.js, React, Redux, Ruby, Ruby on Rails, Three.js, jQuery, Ajax, SQL, HTML, DOM, CSS, AWS S3

PROJECTS:

ARTCOAG *Ruby on Rails, ReactJS, Redux, AWS S3, JBuilder, CSS, webpack*

[live](#) | [github](#)

Upload artworks, like and comment on other users' artworks; "ArtCoag" an ArtStation clone.

- Built a screen size-agnostic and responsive index page using CSS media queries to neatly align thumbnails and maximize screen space.
- Ensured performant comment tree structure by building relations between the page, its immediate comments, and recursive child comments in the react front-end.
- Utilized AWS S3 to save and serve user-uploaded images and to seed the database back-end.

MACHBLITZ *JavaScript, Three.js, DOM, Blender 3d, Photoshop, Substance Painter, webpack*

[live](#) | [github](#)

Get behind the wheel of the fastest racing machines in the galaxy!

- Leveraged three.js to quickly organize and render 3D assets in canvas and program moving objects with transforms and animations.
- Solved gimbal lock rotation problems inherent in Euler angle rotations by learning about and leveraging quaternions so that rotations are fluid and more naturally manipulated in 3D space.
- Created a responsive user interface using Object Oriented Programming (OOP), DOM manipulation, and CSS resulting in clean and reusable code for fast iteration.

HOTSPOT *JavaScript, React, Redux, MongoDB, Mongoose, Express, Axios, AWS*

[live](#) | [github](#)

Find new events popping nearby or join groups with a regular event schedule.

- Collaborated with a team of 3 engineers to quickly put together multiple CRUD features.
- Directed a strong git workflow to maximize productivity and minimize git merge conflicts.
- Designed Mongo queries to return maps of keyable objects rather than arrays resulting in instant look-up time within query results and easier manipulation in the server app code and improving user experience.

WORK EXPERIENCE:

SQL Server Developer *SQL Server Reporting Services, SQL Server Management Studio, MSSQL, Excel, JavaScript*

Atmosoft and PermaPlate

February 2022 – Current

- Identified critical breakpoints in new system migration data enabling data-management teams to resolve cascading data errors.
- Created JavaScript data and table-analysis tools crushing critical, longstanding, analysis logjams.

Unreal Engine Developer *Unreal Engine 4, Blueprints, UMG, Blender 3d, Substance 3D, HTML Parser*

[presentation](#) | [award](#)

Institute for Modeling Collaboration and Innovation (IMCI) at the University of Idaho

May 2018 – June 2020

- Lead Unreal Engine application development and collaborated with biomedical researchers to create an educational protein manipulator set in virtual reality.
- Implemented new controller interface schemes to overcome intuition and nausea barriers in virtual reality so new users could productively move around and manipulate objects within the environment.
- Utilized cinematic systems in Unreal Engine to smooth virtual reality related camera shake and movement to demo the application live at SIGGRAPH Asia 2019.

UAS Operator / 15W

USARMY, Unmanned Aerial System Operator

August 2009 – July 2015

- Piloted over 100 surveillance missions, 995 recorded flight hours without incident.
- Challenged work safety practices by investing in safety equipment and leading classes to boost confidence and productivity in maintaining ground control equipment.

EDUCATION:

University of Idaho – BS Virtual Technology & Design, 2015 – 2019

AppAcademy – 1000-hour Fullstack Engineering course – 2021