

LINKEDIN

kellyliu1

PORTFOLIO

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Education

Columbia University | New York, NY

Aug 2011 – May 2015

B.S. in Biomedical Engineering, Cumulative GPA 3.0/4.0

Honors: C.P. Davis Scholar, received 4-year scholarship and annual summer research grants**App Academy** | San Francisco, CA

Oct 2015 – Dec 2015

1000-hour immersive full-stack web development course: Rails, SQL, JS, React, TDD, algorithms, design patterns, and programming best practices.

Projects

Flushr | **Full Stack** (*Ruby on Rails, React.js*)[Live](#) | [Github](#)

Worldwide restroom finder inspired by Yelp

- » Pinpoints existing restroom locations with geolocation search feature using Google Maps API integration
- » Relies on crowdsourcing data to allow users to add new spot markers to map
- » Custom authentication system using BCrypt to salt and hash passwords

Asteroids | **Front End** (*JavaScript*)[Live](#) | [Github](#)

Classic arcade game built for the browser

- » Renders graphics elements using HTML5 Canvas element
- » Uses vector algebra and trigonometry to handle movement and collisions

Chess | **Back End** (*Ruby*)[Github](#)*Two-player based console chess*

- » Move validation algorithms to enable full range of movement
- » Utilizes object-oriented design and multiple levels of inheritance for DRY code

Manned Aerial Survey System | (*Matlab*)[Github](#)*Humans in Spaceflight Final Project*

- » Matlab application to assist current astronauts aboard International Space Station photograph areas of the world
- » Incorporated GUI with weather and Google Maps APIs, implemented gyroscope to allow for degrees of sensitivity

Skills

- » Ruby
- » Ruby on Rails
- » jQuery
- » React.js
- » Flux
- » HTML
- » CSS
- » Bootstrap
- » SQL
- » Git
- » Rspec
- » Matlab

Experience

Research Assistant

Jun 2013 – Aug 2013

University of Applied Sciences Bonn-Rhein-Sieg | Rheinbach, Germany

- » Selected as international DAAD Scholar to research role of protein tumor-suppressor p53 by isolating human mesenchymal stem cells and induced to differentiate towards different cell lineages
- » Co-published abstract "p53 Acts As a Major Regulator in Human Mesenchymal Stem Cell Differentiation Towards Various Cell Lineages", which presented at the 2013 World Conference on Regenerative Medicine in Leipzig, Germany

Requirements Engineering Intern

Jun 2013 – Aug 2013

National Aeronautics and Space Administration (NASA IV&V) | Fairmont, WV

- » Renewed NASA's Software Assurance Standard, a document used for keeping NASA equipment and safety standards up-to-date for future space flights with safety risk assessment software
- » Presented suggestions of changes to document to 50 NASA engineers at NASA Headquarters in Washington D.C.