

UTAKO UEDA

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LANGUAGES & FRAMEWORKS

- Ruby
- Ruby on Rails
- Javascript
- CSS
- Backbone.js
- SQL, PostGresQL
- Node.js
- HTML5, CSS5
- Software: Adobe CS6, Solidworks, Origin, Labview, Mathematica
- Other: Robot and circuit design, programming and fabrication

EXPERIENCE

Research Associate

DEPARTMENT OF RADIATION ONCOLOGY
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

JULY 2009 TO SEPTEMBER 2013
SAN FRANCISCO, CA

- Managed research projects to optimize performance of deformable image registration algorithms for future safe and reliable use in radiation oncology treatment planning
- Developed methodology to test algorithms using Matlab and Ruby
- Collaborated closely with a team of medical physicists, physicians and medical software engineering teams

Research Assistant

CENTER FOR ENERGY RESEARCH
UNIVERSITY OF CALIFORNIA, SAN DIEGO

MARCH 2005 TO SEPTEMBER 2008
SAN DIEGO, CA

- Ran experiments for measurement of plasma jets and x-ray output produced by wire ablation
- Designed and fabricated experimental machines and tools
- Data acquisition and analysis for publication
- Modeled complex plasma interaction using C++ and Fortran

PROJECTS

AirDnD

- A web-app for connecting Dungeons and Dragons players with Dungeon Masters and vice versa. Originally just a pun based on Airbnb, now a web-app using Ruby on Rails, Javascript, Backbone.js, jQuery, HTML5 and CSS3.

Asteroids

- My take on the arcade game using Javascript, jQuery and HTML5 Canvas. The bullet-asteroid interactions are elastic collisions that are dependent on the ratios of the bullet- and asteroid- radii, assuming that their densities are the same (an approximation of Newton's Law of Gravitation).

ravenLists

- Your standard Trello clone, implementing Backbone.js, Ruby on Rails, Javascript, jQuery, HTML5 and CSS3.

MISC. SKILLS & INTERESTS

- Three years machine shop experience (teaching and machining)
- Native written and spoken English and Japanese
- Excellent communication & organizational skills
- Interests: Backpacking, playing music, cycling & beer

EDUCATION

UNIVERSITY OF CALIFORNIA, SAN DIEGO
REVELLE COLLEGE

FALL 2003 TO FALL 2007

- Degrees: BS in Physics, Minor in Political Science
- Relevant Courses: Galaxy Modeling (C), Robot Design (C++, Assembly), Graduate Statistical Mechanics
- Design Editor for the MQ • Designer for the UCSD Guardian

PUBLISHED RESEARCH

- Co-authored papers in numerous publications, including the *Medical Physics Journal* and *IEEE Transactions on Plasma Sciences*.
- Speaker: American Association of Medical Physics Annual Meeting • 2012 • 2010