Justin **Menestrina** Github | LinkedIn

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Projects

Climb California (Rails, React.js) Live • Github
Trip sharing site for California Rock Climbing
- Integrated Google maps API with backend geolocation to for location based searching
- Custom SQL queries with multiple joins allow for filtering of users and trips based on activities and features and user feeds based on interests
- Jbuilder serialization coupled with Active Record prefetching avoid performance decreasing N + 1 queries

Ruby Chess (Ruby) Github
Console based Ruby Chess with cursor controlled input
- Multi-level class inheritance structure creates DRY code
- Cursor display allows users directly interact with game by using arrows

Astroman Game (Javascript) Live • Github
Javascript and Canvas based sidescroller based in space
- Uses canvas for display and draws on sprites to represent different game objects
- Game loop implemented with *runAnimationFrame* smoothes frame rate
- Level constructor maps array of strings to level object by parsing string and assigning correct game object

Skills

Ruby	Rails	Javascript	jQuery	SQL	HTML 5
React.js	Git	Python	Bootstrap	Flux	CSS 3

Education

App Academy *San Francisco, CA* | *August 2015 - November 2015*
- Fullstack Web Development Bootcamp with focus on Rails backend and Javascript/React.js frontend

University of California, Irvine *Irvine, CA* | *August 2012 - August 2015*
- Master of Science, Physics | GPA: 3.87

Vanderbilt University *Nashville, TN* | *August 2008 - May 2012*
- Bachelors of Science, Physics with Highest Honors | Physics GPA: 3.95
- McMinn Honors Scholarship -- Two year full tuition scholarship awarded to physics student with highest GPA

Experience

Graduate Student Researcher *Irvine, CA* | *August 2012 - August 2015*
- Spearheaded the NSF research project by creating new drilling techniques for Silicon Nitride Nanopores and designing fluid cells in AUTOCAD
- Developed numerical COMSOL simulations for the nanoscale electrochemistry of the pores and wrote python scripts using NumPy for data analysis
- Discovered novel mechanism for how particles can modulate ionic concentration at pore entrances int low ionic concentrations
- Published in ***The Journal of Physical Chemistry C***

Undergraduate Student Researcher *Nashville, TN* | *August 2010 - May 2012*

- Original research on Big Bang Nucleosynthesis won the Goldwater Scholarship at a national level
- Wrote FORTRAN simulations to simulate element abundances of BBN as a function of neturino numbers
- Published in ***Physical Review D***