Miguel Bonmati Conner

http://miguei.github.io
miguelconner4@gmail.com | (713) 213 8328

EDUCATION

REED COLLEGE
BA in Physics
May 2015 | Portland, OR
Thesis on HQAs

AWTY INTERNATIONAL
Grad. May 2011 | Houston, TX

LINKS

LinkedIn:// **miguelconner**
Github:// **Miguei**

SKILLS

PROGRAMMING
Working Knowledge:
R • Mathematica • python •
HTML5 • CSS3 • LaTeX
Learning:
SQL • JavaScript • Neo4j

OPERATING SYSTEMS
Mac OS X • Windows 7 • UNIX

OTHER SOFTWARE
MS Office • Adobe Photoshop •
RStudio • IPython • GitHub

R PACKAGES
ggplot2 • dplyr • dygraphs •
shiny • leaflet • tidyr •
lubridate • stringr • DT

COURSEWORK

UNDERGRADUATE
Case Studies: Stat. Analysis (Math 241)
Statistics (Math 141)
Computation (Math 121)
Scientific Computation (Physics 367)
Advanced Lab (Physics 331 and 332)
Nonlinear Dynamics (Physics 411)
Solid State Physics (Physics 362)
Quantum Mechanics (Physics 342)
Classical Mechanics (Physics 311)
Electrodynamics (Physics 321)
Multivariable Calc (Math 211 and 212)

LANGUAGES
English (Native)
Spanish (Native)
French (Elementary)
Esperanto (Elementary)

WORK EXPERIENCE

AUDIGY GROUP | Business Development Intern
June 2015 – Present | Vancouver, WA
Classified business' markets according to their approximate marketing costs and normalized the cost by the approximate expenditures in their practice boundary. Created a *shiny* app that performed k-means cluster analysis on demographic data and rendered the results in an interactive *leaflet* map. Worked with **De'Mel Mojica**. (Used R and Neo4j.)

REED RESEARCH REACTOR | Senior Reactor Operator
Jun 2013 – May 2015 | Portland, OR
As an NRC licensed Senior Reactor Operator:
- operated and supervised Reed's nuclear reactor for the purposes of research, training, and tours;
- inspected samples using neutron activation analysis;
- organized and presented lectures to trainees.

RESEARCH

THESIS: HQA TUNNELING | Reed College
2014-2015 | Portland, OR
Planned and built an experimental apparatus to test a "quantum" property in a macroscopic Hydrodynamic Quantum Analog (HQA). Collected and analyzed data from multiple trials. Wrote thesis detailing results and defended in a 2 hour orals board. Thesis supervised by **Daniel Borrero**. (Used R and Mathematica.)

MARS ATMOSPHERE | UArk Space & Planetary Science Center
Summer 2014 | Fayetteville, AR
Using atmospheric data from Mars landers (Phoenix and MSL), carried out a regression analysis of the data to fit the theoretical model of atmospheric adsorption. Under **Dr. Vincent Chevrier** and **Holly Farris**, wrote abstract and presented findings to faculty and at the 2015 LPSC conference. (Used Mathematica and MS Excel.)

MEDICAL PHYSICS | Seattle Cancer Care Alliance
Summer 2013 | Seattle, WA
Lead a statistical analysis of proton therapy couch position for prostate cancer patients, under **Dr. Charles Bloch**. The analyzed data allowed for new procedural adjustments which streamlined treatment times and improved workload for beam technicians and medical physicists. (Used MS Excel.)

AWARDS

2015 LPSC Undergraduate Travel Stipend
2015 Reed College Academic Commendation (On Track)
2014 Reed College Academic Commendation
2014 NSF/NASA REU Fellowship
2013 AAPM MUSE Fellowship

PUBLICATIONS

M. B. Conner, H. N. Farris, V. F. Chevrier. *Regolith-Atmosphere Water Vapor Transfer on Mars: Comparison Between Phoenix and MSL Data.*
H. N. Farris, **M. B. Conner**, E. G. Riviera-Valentin, V. F. Chevrier. *Regolith Control of Atmospheric Water Vapor on Mars: Analysis of Phoenix TECP Data.*