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I am a geek, a skeptic and I wear bowties for fun. I have been a Unix Engineer for two years, and was described on my 2017 review as highly innovative. Most recently I have been a ROC engineer, operating the robots for Walmart. Experience complimented by Ph.D. in Physics.

Technical Portfolio: C, R, and Python, Scheme, Lua, Bash, Perl, Fortran, C++, ላቸር X.

Experience _____

ROC Engineer

Tech Mahindra

May 2019-December 2019

• Operate the robots in Walmart

- Utilized DOC software in a dealer into
- Utilized ROS software in a docker image
- Work for BossaNova robotics through Tech Mahindra

Unix Linux Systems Engineer

New York, NY

Aug 2016-Mar 2018

- Manage IT infrastructure of high profile clients
- My communication with key clients was described as "commendable"
- · Utilized Ansible and IPautomatas, their proprietary solution, to provide unix automation

Volunteer_____

UNIVERSITY AT BUFFALO

IPSOFT INC

Physics Graduate Student Association Senator

Buffalo, NY

Aug 2008-Dec 2011

- Spent three years maintaining and starting the graduate student computer lab
- It involved Kerberos, OpenLDAP, OpenAFS, Python, Windows and Linux
- · Was also in charge of the department webserver

Education

University at Buffalo Buffalo Buffalo

PH.D IN PHYSICSAug. 2006 – Feb. 2012

Andrews University Berrien Springs, MI

B.S./M.S. IN BIOPHYSICS AND MATHEMATICAL STUDIES Aug. 2001 – Aug. 2001

Awards and Certifications

2016 **Red Hat Certified System Administrator**, License 130-172-497

RHCSA

2016 Cisco Certified Entry Networking Technician, License CSCO12981391

CCENT

DECEMBER 17, 2019 JEFFREY P. HAFNER RÉSUMÉ 1



PHY506: Computational Physics 2 Buffalo, NY

Spring 2008 **UNIVERSITY AT BUFFALO**

Implemented a cellular automata traffic modeler in Python to investigate phase transitions in traffic

PHY515: High Performance Computing 1

Buffalo, NY University at Buffalo Fall 2008

Parallelized my dissertation utilizing ScaLAPACK.

CSE536: Computational Biology Buffalo, NY

UNIVERSITY AT BUFFALO Fall 2011

Implemented a 2D Hydrophobic-Hydrophilic Protein folder utilizing an Ant Colony Optimization Algorithm in Python.

Doctoral Dissertation Buffalo, NY

UNIVERSITY AT BUFFALO 2008-2011

• titled: Validation and Refinement of Course Grained Protein Models

- About a 100 pages of text, Over 5000 lines of C, and over 1000 lines of Python.
- Work was performed on the computing resources of UB Center for Computational Research

physicsAMC Dobbs Ferry, NY and Baltimore, MD

PHYSICS TEACHER 2014-2016

- A comprehensive physics exam bank that utilizes an lpeg parser for question selection.
- This project enabled me to use an infinite redo policy on all assessments, without punishment, which was an important motivation for this project, and created some of my favorite memories.
- this project utilizes LTEX, lua, lpeg, and tikz for graphics, and contains more than a 100,000 lines of code.
- sample-exam, https://github.com/jphafner/physicsAMC

physicsReport Dobbs Ferry, NY

PHYSICS TEACHER

An example lesson plan, and lab report template that I used while a physics teacher, https://github.com/jphafner/physicsReport

Publications

Approximate normal mode analysis based on vibrational subsystem analysis with high accuracy and Hafner J. & Zheng 2009 efficiency, Journal of Chemical Physics W. Optimal modeling of atomic fluctuations in protein crystal structures for weak crystal contact interactions, Hafner J. & Zheng 2010 Journal of Chemical Physics W. All-atom modeling of anisotropic atomic fluctuations in protein crystal structures, Journal of Chemical Hafner J. & Zheng 2011 **Physics** W.