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I am a geek, a skeptic and I wear bowties for fun. I have been a Unix Engineer for a while now, and was described on my 2017 review as highly innovative. Currently I am an Unix Engineer Engineer for Fedex Supply Chain. Experience complimented by Ph.D. in Physics.

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

# **Experience**

**Engineering Specialist** Pittsburgh, PA

FEDEX SUPPLY CHAIN

April 2020-Current

- Lutilize Terraform and Ansible to deploy and configure systems on Oracle Cloud Infrastructure (OCI).
- I have written custom scripts to perform audits for clients and other stuff relating to OCI.
- I have done a lot of infrastructure as code using Terraform.
- I have brought automation with my Ansible skills.

**ROC Engineer** Pittsburgh, PA

TECH MAHINDRA May 2019-December 2019

- Operate the inventory robots in Walmart
- Utilized ROS software in a Docker image
- · Work for BossaNova robotics through Tech Mahindra
- · All work was done on a Linux host

**Unix Linux Systems Engineer** New York, NY **IPSOFT INC** 

- Aug 2016-Mar 2018 • Manage IT infrastructure of high profile clients
- · Monitored client environments and developed automation to resolve issue • Diagnosed issues with Unix/Linux.
- My communication with key clients was described as "commendable"
- · Utilized Ansible and IPautomatas, their proprietary solution, to provide unix automation
- Provided automation for clients "that exceeds most of the rest of your teammates".

**Physics Teacher** Dobbs Ferry, NY

MASTERS SCHOOL

- Teaching 11<sup>th</sup> grade and AP Physics C: Mechanics
- An example lesson plan and lab report template used
- Utilized a unique assessment system that allowed infinite redos

**Physics Teacher** Baltimore, MD

**BALTIMORE CITY PUBLIC SCHOOLS** 

2014-2015

- Teaching physics first at Mervo
- Utilized a unique assessment system that allowed infinite redos

**Adjunct Physics Professor** Towson, MD

TOWSON UNIVERSITY

2013-2014

Teaching Light and Color, a non-major physics course

**Postdoctoral** Baltimore, MD

University of Maryland

Implementation of Particle Mesh Ewald Electrostatics for Continuous Constant pH Molecular Dynamics in CHARMMM.

### Volunteer

**UNIVERSITY AT BUFFALO** 

#### **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

JEFFREY P. HAFNER RÉSUMÉ OCTOBER 1, 2023

**Education** 

University at Buffalo Buffalo Buffalo

**PH.D IN PHYSICS**Aug. 2006 – Feb. 2012

Andrews University

Berrien Springs, MI

B.S./M.S. IN BIOPHYSICS AND MATHEMATICAL STUDIES Aug. 2001 – Aug. 2006

## **Awards and Certifications**

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

RHCSA

2016 **Cisco Certified Entry Networking Technician**, License CSCO12981391

# **Projects**

PHY506: Computational Physics 2

Buffalo, NY

University at Buffalo Spring 2008

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 ET<sub>F</sub>X, 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 2015

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

## **Publications**

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