Jeffrey **Hafner**

Physicist & Unix Engineer

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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++, LaTeX.

Experience

Unix Engineer
Pittsburgh, PA

Fedex Supply Chain
April 2020–Current

- I utilize 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 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
2015–2016

- Teaching 11th 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
2012

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

Volunteer

Physics Graduate Student Association Senator
Buffalo, NY

University at Buffalo
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, NY*

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 — *CCENT*

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 LaTeX, 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 efficiency**, Journal of Chemical Physics — *Hafner J. & Zheng W.*

2010 **Optimal modeling of atomic fluctuations in protein crystal structures for weak crystal contact interactions**, Journal of Chemical Physics — *Hafner J. & Zheng W.*

2011 **All-atom modeling of anisotropic atomic fluctuations in protein crystal structures**, Journal of Chemical Physics — *Hafner J. & Zheng W.*

IPsoft 2017 Performance Review

Customer Satisfaction: One drop for McKesson and 4 Merits overall in 2017. Not perfect, but not bad at all. Always aim to keep our clients happy and go that extra mile.

Innovation: You've put in significant effort into creating and optimizing automation. Fantastic! It shows great initiative that exceeds most of the rest of your teammates'.

Overall: Jeffrey,

I know working 3rd shift presents a great challenge in keeping in touch with the vibe and camaraderie of the rest of the team, but you've handled it well. You have done an admirable job working with the BLR team and Keith given the challenges; especially that this is your first real job in the field. Your communication efforts with McKesson in particular are commendable.

For the year ahead, I think you know what the primary area of improvement needs to be: Ticket Handling. Remember: Response times are important, but so are resolution times and diligent follow-up. You cannot let tickets linger for weeks or longer in your queue. Push to close them ASAP relevant to priority and provide periodic updates so the client knows issues are not being ignored. Additionally, please ensure to keep your station tidy. These are shared spaces so everyone is expected to clean up after themselves.

I see 2018 as a year of tremendous opportunity for you here. The minutia of your job requirements should not hold you back from excelling in a purely technical role. Correct those issues promptly then put in the effort to increase your technical expertise. Add in initiative to create more automation and create value for our clients and you will be on the fast track to a TL or TE role, or beyond. Here's looking forward to accelerated growth and evolving in the year ahead! —Brian