Jeremy Gresham

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Github | LinkedIn
https://ihautai.github.io

Technical Skills

- Python programming, including Object-Oriented programming, data analysis with Pandas, machine learning with Scikit-Learn, test-driven development
- Django, django-rest-framework
- Experience with JavaScript, including D3 for data visualization and mapping with TopoJSON, GeoJSON or shapefiles
- Technical Writing
- Proficient with LaTeX, a technical typesetting language
- Proficient with Maple and Matlab, mathematics and modeling software
- 2D/3D CAD/CAM
- Basic electronics, soldering, experience with Arduino and BeagleBone Black
- Comfortable with the GNU/Linux, Mac and Windows families of operating systems

Professional Training

The Iron Yard Durham, NC
Python Programming May 2015 - July 2015

Final Project: 'Moovn On' webapp
Description of Responsibilities:
Heroku management and deployment, creation of a django back-end with read-only RESTful API, data gathering, data cleaning, data visualization with D3.js, map making and bubble-charting
Technologies Used:
Python3, Django, django-rest-framework, GIS data from Census.gov and Zillow, ogr2ogr, GeoJSON, TopoJSON, D3.js, JavaScript, jQuery, HTML, Heroku, PostgreSQL, SVG

Education

Master of Science (MS), Mathematics 2011
University of North Carolina Wilmington

Bachelor of Science (BS), Mathematics Minor in Physics 2007
North Carolina State University

Employment

Duke Cancer Institite, Bioinformatics Shared Resource Durham, NC
Scientific Programmer *November 2015 - Present*

- Algorithm and pipeline development
- Programming in a variety of environments and languages including Python, C/C++, R, CUDA/OpenCL

- Collaboration with cancer researchers and statisticians
- All code produced to be shared with the research community under a public license (usually GPLv3)

ShopBot Tools, Inc. Durham, NC
Support Technician *November 2013 - May 2015*

- Provide technical support for hardware, software, and mechanical aspects of CNC tools for ShopBot customers
- Collect information about customer issues with construction and installation, operation, configuration, customization, and usage of tools and software. Identify problems, investigate causes, generate tests, and analyze test results. Research technical issues to resolve complex issues. Provide specific instructions and guidance to customers to troubleshoot and resolve issues.
- Responsible for supporting a range of technical issues, including machine repair, parts replacement, wiring instructions, general tool use, calibration, tool path generation (2D/3D CAD/CAM), coding, and integration into manufacturing processes
- Track new product development to prepare for new systems, tools and accessories and understand how they function and how they will be integrated with existing software.
- Assist in general software testing and suggest improvements to user interface

Wake Forest Baptist Medical Center Winston-Salem, NC
WakeOne Credential Trainer *June-October, 2012*

- Facilitated specialized one-day training sessions for physicians and surgeons to orient them in the use of a new heavily customized Electronic Medical Record (EMR), focusing on accurate documentation of patient visits and surgical consultations
- Provided in-person follow-up support to medical teams upon system implementation
- Analyzed system roll-out and implementation and provided recommendations to programmers regarding design issues and bugs

Conference Participation

- *AMS Special Session on Kac-Moody Algebras, Vertex (Operator) Algebras, and Applications*, University of Richmond, November 2010
- *Lie Theory Conference*, University of Georgia, May 2010
- *Lie and Representation Theory Summer School*, University of Georgia, May 2010
- *NSF/CBMS Regional Conference on Quiver Varieties and Quantum Affine Algebras*, North Carolina State University, May 2010

Publications

- Masters Thesis, *Representations of Infinite Dimensional Lie Algebras and Dirac's Positron Theory*