Guthrie Alexander

github.com/goa5t   linkedin.com/in/guthrie-alexander

2209 Jefferson Park Avenue, Unit 3   434-249-0064
Charlottesville, VA 22903   guthrie.o.alexander@gmail.com

Technical Skills
- Proficient in: Python (Libraries: fabric, pandas, numpy, scikit-learn, torch, matplotlib), C/C++, MySQL, MS SQL Server, Oracle, Bash, Linux (Ubuntu, CentOS), Processing, Arduino IDE, Maya
- Experience with: Perl, PHP, Javascript, VisualBasic, AutoIT, Eclipse, Java, Coq, Dreamweaver, Tomcat, IIS

Education – University of Virginia
- Master of Computer Science, **GPA: 4.0**   *Expected Graduation December 2017*
- Bachelor of Arts, English Literature, Computer Science minor, **GPA: 3.4**   *August 2005-May 2009*

Coursework
Machine Learning   *Fall 2016*
- Created supervised machine learning models (linear regression, SVM) using the python library scikit-learn
- Implemented NLP (Natural Language Processing) models using Bayesian probabilistic models in python
- Develop image classification and audio clustering models using KNN, SVM and PCA

Cloud Computing   *Spring 2017*
- Set up Linux VMs in public cloud infrastructures (IBM BlueMix, Microsoft Azure, Amazon AWS)
- Installed and ran a XenCenter instance on a local VM, simulating a XenCenter installation on a remote cloud
- Engineered a 4-node Hadoop cluster in AWS on EC2, ran Terasort benchmark using 1GB of Teragen data

Direct Cinema Media Fabrics   *Spring 2017*
- Produced a project featuring a programmed Arduino to record light and sound values and piped them to Processing
- Designed and implemented a 3D multimedia rubik's cube with 54 looping videos (one on each face)

Professional Experience
Graduate Research Assistant, University of Virginia Electrical and Computer Engineering Department   *July 2016-August 2017*
- Lead research on an NSF funded project – improvement of the software Local Data Manager in conjunction with the Internet Data Distribution project sourced by the University Corporation for Atmospheric Research
  - Completed virtual circuits using OESS and OSCARS on both DYNES (NSF funded project) and AL2S
  - Automated experimental trials and data collection with python scripts
  - Built graphs and data visualizations with R, making inferences on performance of system based on metrics
- Administered four departmental Linux research machines all connected to an OpenFlow switch
- Presented research progress and findings at GENI NICE 2016 in Irvine, CA in December, 2016

IT Specialist, University of Virginia Advancement Office   *October 2013-July 2016*
- Initiated a ticketing system and wiki, improving the quality of IT support
- Provided desktop support to 140+ PC and Mac employees remote and in-office
- Administered Windows Server 2003/2008 R2 machines, which includes AD, File Sharing, Group Policy

IT Technician and Apple Support, Saint Anne's-Belfield School   *August 2012-October 2013*
- Established two Mac labs and a Mac OS X Server to manage 100+ school-owned Apple products
- Provided general desktop support for 100+ faculty and staff, and 850+ students
- Adjusted and maintained Group Policy Object scripts and policies for domain computers

Technical Support Associate, Bedford/St. Martin's   *June 2009-August 2012*
- Implemented Java web apps monitoring temperature and disk usage of 12+ servers (Java front-end, MySQL back-end)
- Maintained login scripts run by users daily, written in VisualBasic/AutoIT
- Processed the database application Status Report comprised of an Access front-end/ MySQL back-end
- Provided desktop support to over 120 employees, remote and in-office

Technician, University of Virginia Information Technology Communications   *August 2005-May 2009*
- Provided desktop support to University faculty, staff and students; a user base of over 15,000 individuals

Awards and Certifications
- Apple Certified Technical Coordinator   *Spring 2014*
- Dean's List, University of Virginia   *Spring 2006-Spring 2009*
- National Scholars Honors Society   *Spring 2008*