Andrew Ragusa
6110 W. Merryway Lane Bloomington IN 47404
812.606.8516 ● ajragusa@gmail.com

Objective

To obtain a responsible position with a dynamic company that will utilize my extensive computer skills, and provide an opportunity for personal advancement while making a real contribution to the organization. I like working on problems that are not well defined and I am a self-motivated team player, who is not afraid of hard work. I have experience taking customer requests and requirements; and turning them into complete and successful products. I have also worked on long-running mission-critical applications that ran on a multiple-vendor platform, supported the software in a nationwide deployment (while supporting the OpenSource community using the applications), and developed a test infrastructure to test all aspects of the software and vendor hardware. I also have experience managing a team of systems and software engineers helping to support an array of applications to control, automate, and test networks of various sizes and locations around the world.

Education

Bachelor of Science in Computer Science at Indiana University Bloomington 2006

Technical Expertise

• Ansible and AWX for Network Automation
• RabbitMQ for message passing and RPC mechanisms
• NetConf experience with Juniper's and Cisco IOS-XR platforms on production networks
• YANG and OpenConfig
• OpenFlow Development, Testing and production deployment
• Docker container development and deployment
• Programming using Net-SNMP, SQL, CGI, and RRDtool, Flash/ActionScript, HTML 5, MongoDB
• Web design using Cascading Style Sheets
• Javascript OOE programming in web-service based environments (YUI), REACT experience
• Database Design (MySQL/MariaDB)
• NoSQL experience with MongoDB
• Templating web Front-ends
• Familiar with several distributions of Linux including: Gentoo, Debian, Redhat, Suse, Mandrake, Ubuntu
• Built and worked in a distributed computing environment (openMosix, MPI, OpenAFS)
• Server setup: HTTP, SMTP, FTP, Samba, DNS, MySQL
• Linux Security
• Wireless Security
• Network Monitoring and Performance Testing
• Service and Host monitoring using Ganglia and NAGIOS
• Programming Languages: Perl, Python, Java, Javascript/HTML, CSS, C, C++, Bash, Ansible/AWX, YANG

Work Experience

2005-current System, Software Engineer and Manager:
Global Research Network Operations Center
Indiana University Bloomington Division of UITS
• Manage a team of 5-7 full-time staff and a small team of hourlies to work on an array of software products and projects related to SDN, Network Automation, Network performance and Network performance testing using Service-based architectures and managing over 100 different physical servers and hundreds virtual machines.
• Developed and Designed the GlobalNOC Network Automation tool suite using AWX/Ansible and YANG models created an entire system and workflow for the Network Engineers to make changes to the network based on "services" as well as updates to all the devices simultaneously
• Developed OESS (Open Exchange Software Suite) an OpenFlow based Wide Area Network Layer2 circuit provisioning service and implemented on Internet2's AL2S network, transiting over 1.5PB of traffic per day.
• Developed FlowSpace Firewall an OpenFlow based switch/network Hypervisor, enabling Internet2's Network Virtualization Service

- Developed SciPass an OpenFlow based ScienceDMZ and IDS load balancer
- Developed GRNOC Ticketing Tools (Notification Tool, Reporting tool, Automated Calendars)
- Developed the GRNOC RealTime Atlas and SNAPP 2.0 and SNAPP 3.0
- Developed Animated Traffic Weathermap
- Worked directly with Software as a Service customers to help GRNOC Tools meet their needs
- Install Servers, Network Devices, Optical and Out of Band infrastructure
- Setup various software programs (Ganglia, perfSONAR, NAGIOS)

2004-2006 System Administrator Distributed Data Everywhere (DDE) Lab, Professor Beth Plale
Indiana University Bloomington
- Maintain Servers and equipment such as Databases, web-servers, grid applications (i.e. Gridport, Globus Toolkit, OGSA-DAI).
- Writing small scripts, client/server applications
- Developed and troubleshot dedicated servers, development of servers, and launching of several small projects.
- Heavily involved in the LEAD (Linked Environments for Atmospheric Discovery) project through IUB. Focus on data streams and end-user applications
- Maintained and wrote the web-site for the DDE Lab

2002-2004 Summer IT/ Networking Assistant.
Indian Prairie School District 204, Naperville - Aurora IL
- Worked with Ric Smith the Network Designer upgrading the networks of all (21) the elementary schools in the district
- Involved Sub-netting, troubleshooting of problems, fixing service requests, deploying new networking equipment, wireless design and security, working on a firewall, router, and switch configurations
- Experience in sub-netting, configuring Cisco routers, switches, wireless access points, and network design

Publications
- Super Computing 2014, SciPass: a 100Gbps capable secure Science DMZ using OpenFlow and Bro, 2014 Indiana University
- On using wide-area inter-domain OpenFlow paths, 2014 Indiana University
- Linux Fest presentation, Distributed computing using openMosix, 2004 and 2005 IUB & IUPUI, 2004-2005 Indiana University
- Indiana University Undergraduate Research Conference, DATA FLOW FOR REAL-TIME INGESTING OF STREAMING DOPPLER RADAR DATA, 2006 Indiana University

Awards
- Member of the National Collegiate Scholars
- 2004 Student Showcase Award for Computers and Computing Thematic Community, Linux Cluster
- Deans list all semesters at Indiana University

References
Ed Balas, Software Engineering Group Manager, IU GRNOC 812-856-9102
Luke Fowler, Systems Engineer Group Manager, IU GRNOC, 812-856-0978
Pete Moyer, Principal Consulting Engineer, Nokia, 510-579-1570
Beth Plale Ph.D., Indiana University, Professor of Computer Science, 812-855-4373