Lucas A. Scharf

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EDUCATION

Masters of Business Administration
University of Illinois at Urbana-Champaign, 2013

Bachelors of Science in Computer Science
Virginia Tech, 2001

EXPERIENCE

ATS Acoustics September 2019 - November 2019
Full Stack Developer

- *Full Stack Developer:* Maintain and extend legacy custom Perl and PHP E-Commerce and ERP applications on a team of 2.
- *Devops:* Taught GitHub use, instituted code reviews, and applied the subset of Agile/DevOps methodologies which benefited the team.
- *Sysadmin:* Maintain servers, desktops, backups, and other tech resources as-needed.
- Laid off because my employer no longer wants to be in the custom software business.

Full-time Parent February 2017 - September 2019

- *Primary Caregiver:* Three children, ages 9, 4, and 2.
- *Illini Glider Club:* Treasurer. Oversee finances for 5 club-owned aircraft, worth roughly $100k in total. Core member of the leadership team. Act as Ground Operations Director (organize club activity to ensure smooth and safe flight operations, oversee volunteers, and teach ground-handling of aircraft). Our team has successfully relocated the club (including all aircraft) from Monticello, IL (2K0) to Danville, IL (KDNV).
- *Leal Elementary School:* PTA Secretary.
- *Cooperative Nursery School:* Parent volunteer.

Oso Technologies & Scotts Miracle-Gro / PlantLink, Urbana, IL February 2016 - February 2017
VP of Software Engineering & Sr. Software Engineer

- *Manage Software Development Effort:* Manage multiple contractors developing multiple interlocking components of the PlantLink Soil Moisture Sensor system (IoT).
- *Architecture:* Oversee the system-wide architecture and interfaces between the components of the PlantLink system, including device firmware, backend services, and mobile app.
- *Systems Integration & Testing:* Ensure that the different components of the system work together.
- *ZigBee Firmware Development:* Develop major portions of the firmware for the PlantLink Lush Sensor and PlantLink Lush Valve.
- *Startup:* Small product development startup, geographically distributed team, acquired by Scotts Miracle-Gro.

Altiscale, Inc, Palo Alto California (Remote) April 2015 - November 2015
DevOps Engineer / Site Reliability Engineer

- *Operations Team:* Operate Hadoop-based cloud service for commercial customers. Fix service outages and address customer requests.
- *Startup:* Series B Startup, with an Agile+DevOps environment, and a globally distributed team.

Yahoo, Inc, Champaign Illinois July 2012 - March 2015
Computer Systems Engineer, Senior

- *Data Highway Petascale Big Data Ingestion System - Oncall Systems Engineer & DevOps:*
  The data ingestion system collects web activity logs from 20,000+ active web-servers distributed across Yahoo's global network, and provides data to a variety of Hadoop and Apache Storm consumers within Yahoo.
  - *DevOps:* Worked closely with an Agile-influenced software development team to provide operational support & troubleshooting. Used Chef in production.
  - *Project Lifecycle:* Provided an operational perspective during the architecture, design, and development stages. Performed production bring-up of the initial service, and maintained the system during its growth to full scale operation. Also, maintained the previous data ingestion system from production through decommissioning.
- *Advertising Data Analysis Pipelines - Oncall Systems Engineer:*
  Performed oncall troubleshooting for Big Data analysis applications in the revenue path running on Hadoop.

University of Illinois, National Center for Supercomputing Applications May 2008 - July 2012
Computer Systems Engineer

- *Private Sector Program Team:* Represent NCSA to external partners, and provide HPC computer systems engineering support to projects performed with external partners. Participated in I-Forge cluster build effort. Represented NCSA during on-site consulting.
- *Blue Water Systems Administration Team:* Provided supporting infrastructure and some general systems administration to Blue Waters HPC cluster build effort.
- *Persistent Infrastructure Team:* Provided support for Grid Services applications (GLOBUS), as well as an automated Certificate Authority (MyProxy) and Kerberos authentication infrastructure.

Virginia Tech, Advanced Research Computing July 2006 - May 2008
HPC Systems Administrator, Advanced Research Computing

- Primary systems administrator for System X, a 1200-node 12 teraflop Mac OS X based supercomputer.
- Implemented a storage upgrades and improved system reliability.
- Represented Virginia Tech Advanced Research Computing at Supercomputing on tours and across campus. Spoke in front of a 100+ member audience at the QLogic Fusion conference in 2007.

Virginia Tech, Department of Aerospace and Ocean Engineering November 2003 - July 2006
Systems Administrator

- Provided deskside IT support for a heterogeneous network of 120+ Windows / Linux / Solaris / IRIX workstations for use by faculty, staff, and students.
- Provided IT support for a wind tunnels, full-motion flight simulator, the satellite systems simulation lab, and a variety of other research labs.
- Provided computational environments suitable for running a variety of engineering applications ranging from AutoCad to Abaqus, Ansys, LS-DYNA, Fluent, Matlab, Tecplot, and related software. Managed the departmental website and rewrote/refactored the department's homebrew CMS using the LAMP stack.
- HPC Deployment: Acted as the technical coordinator for the installation and maintenance of a 38-rack 512-CPU SGI Origin 3800 shared memory supercomputer.

Virginia Tech, Department of Entomology June 2002 - November 2003 DBA for Slow The Spread gypsy moth population survey

- Administered a Oracle database server. The database fed in to a pest control analysis system based on ESRI ArcView and later ArcGIS.
- Assisted in the development of a mobile and geographically-aware data-collection application using WinCE and GPS. Traveled to nine states to train end-users on the use of the application.

Various Part Time Positions 1993 - 2002

- *Virginia Tech Configurable Computing Lab, 1998 - 2001:*
  Systems Administrator for a 16-node Linux/Windows HPC cluster with a Myrinet interconnect and FPGA-based computational accelerators. Supported a variety of FPGA development toolchains used in an academic research setting.
- *Virginia Tech Scientific Visualization Lab, 2002:*
  Assisted in the maintenance of computer systems used to drive the VT CAVE (4-wall immersive virtual reality system), as well as immersive head mounted displays (HMDs).
- *Intransa Inc, 2001:*
  Summer internship with a startup company. Assisted in hardware development of FPGA-based bulk disk storage system.
- *Shenandoah Technology Systems, 1993 - 1997:*
  Computer technician for my family's computer shop during high school. Provided PC sales & service to small businesses, local government, and individual customers throughout Shenandoah County Virginia.