Will Angley

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Software Engineer

Google Fiber November 2014 – February 2017, New York City

- Lead engineering of Fiber-managed WiFi guest networks for apartment buildings and small businesses. Adapted autoprovisioning software to go from idea to pilot in three months. Handled communication with product management, sales, and property managers in the pilot deployment.

- Develop autoprovisioning software that allows newly powered up TV boxes to learn their own WiFi configuration and start playing TV immediately.

- Secure autoprovisioning and guest networks so customers can use them safely, with `minijail` to contain server processes and `tc` to let roaming TV boxes drop unsolicited traffic cheaply.

- Adapt the `isostream` network measurement tool to simulate high-definition wireless TV streams. Deployed this simulation to Fiber TV subscribers, found sufficient bandwidth for wireless TV and critical WiFi driver bugs. After fixes shipped, used simulation to verify them in the field.

- Run an ongoing dogfood for the Google Fiber wifi router in 20% time. Set up 300 tech and business Googlers with routers, moderated a mailing list to stay in touch with them, and investigated and resolved issues that came up. Automated orders so I could do this part time; without automation running a dogfood this size is a full-time job.

20% projects, July 2014 – November 2014

- Extend our in-house logs processing utility Turbogrinder (similar in spirit to Stackdriver logs-based metrics, but simple enough for one engineer to build and run) to read logs published to our QA server. This let us test it more quickly, and without using sensitive data access.

- Build distribution support for Turbogrinder, allowing it to summarize time series information including device temperature and ping round-trip times from devices in the field.

Technical Solutions Engineer

Google Cloud Search July 2013 – November 2014, New York City

- Remotely diagnose and repair malfunctioning Google Search Appliances.

- Write customer-deployable support scripts to troubleshoot Appliances in embedded applications where no network access is available.

- Develop a customer-deployable configuration profile to quiet fan operation on Search Appliances, resolving several dozen escalated cases that had been previously thought infeasible. This was one of the biggest issues at the time; I got two peer bonuses and a spot bonus for this work.

- Automate support for customers with common problems by extending our team's support AI to handle Search Appliance cases.

- Work with external partners and vendors to ensure successful deployments at large government and commercial customers.

Consultant

Booz Allen Hamilton June 2008 – July 2013, McLean, VA

- Developed custom mapping software in Python to ingest and visualize months of NAIS vessel movement data for a US Government client. Reduced the time it takes to go from raw input to finished maps from a week to a day.

- Built a LiDAR data warehouse for a US Government client. Developed a Python Web application using Django, C++ data processing utilities, Celery to schedule runs of these utilities, and an Oracle Spatial backend to store raw and processed data.

- Worked with developers of open source utilities (`points2grid`, libLAS, PDAL, MapServer, GDAL) used in the data warehouse, and contributed patches upstream.

- Rapidly prototyped Asset Management web applications. Generated project overview presentations automatically from the database using the ReportLab Toolkit. Visualized financial data using D3.js.

Internships

USPS OIG, June 2007 – August 2007, Arlington, VA

Computer Sciences Corporation, June 2006 – August 2006, Chantilly, VA

USPS IT, June 2005 – August 2005, Washington, DC

Education

M.S., Computer Science, George Washington University, 2013

B.S., Computer Science, College of William and Mary, *magna cum laude,* 2008