Nathan Chancellor

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Summary

Passionate and resourceful Linux kernel developer with over three years of upstream development experience, resulting in over 500 patches accepted and recognition from Google Open Source. Contributed backports to the linux-stable repository and helped prevent merge regressions in downstream trees.

Experience

Independent Contractor The Linux Foundation, Mesa, AZ January 2021-Present

- Maintaining ClangBuiltLinux by creating/reviewing/testing patches, triaging/reporting bugs to upstream Linux and LLVM, creating and maintaining tools to assist with development, and maintaining continuous integration. See open source experience below for more examples.

Apple Computing Certified Advisor Best Buy, Chandler, AZ October 2018-January 2021

- Responsible for developing consumer computing solutions, including desktop/laptops, accessories, and services, specifically around Apple products
- Consistently at the top of the sales floor in revenue performance, achieving the number one spot from February to June
- Became a million dollar writer seven months into the 2020 fiscal year and eight months into the 2021 fiscal year

Test Automation Intern SAP SE, Tempe, AZ July 2017-July 2018

- Developed Visual Basic for Applications scripts to test business software based on test cases written by quality engineer, helping the company avoid manual testing, saving time and money
- Created and maintained Jenkins builds to run Visual Basic for Application scripts at periodic intervals, which helped bring issue resolution down from days to hours
- Created bug reports based on defects discovered during testing, providing clear and concise reproduction steps to resolve potential user visible issues
- Optimized testing strategy by collaborating with developers and quality engineer
- Developed in an Agile development environment, participated in scrum meetings daily to provide updates on progress
- Created an automation strategy presentation and delivered a live demonstration to ASU capstone students within a month of job start, receiving praise from automation and quality leaders

Technical Advisor Apple, Inc., Mesa, AZ June 2014-March 2017

- Solved a wide variety of technical problems for Apple customers with iOS (iPhone, iPod, iPad and iTunes) and CPU (MacBook Pro, MacBook Air, and iMac) products in a real-time environment
- Earned high marks for customer satisfaction (95% overall satisfaction and 90% issue resolution)
- Developed skills in listening and asking questions to quickly resolve customer problems
- Continuously improved metrics and efficiency following management feedback

Open source experience

- Submitted various patches to the Linux kernel, responding to feedback and criticism appropriately (@gmail.com and @kernel.org), resulting in most patches being accepted by the maintainers of the respective subsystems.
- Collaborated with engineers from Google, Linaro, and IBM on ClangBuiltLinux, an organization dedicated to getting the Linux kernel properly compiling with Clang, helped triage and debug issues, created a Python toolchain build script for consistent testing, created a set of QEMU boot scripts for image validation, helped with both the continuous integration setups (Travis CI based and TuxSuite/GitHub Actions based), and created a Docker environment for easy testing. Received a Google Open Source Peer Recognition in 2019 and 2022 for this work.
- Contributed various backports (@gmail.com and @kernel.org) to linux-stable, including:
  - Re: Clang backports for 4.9 and 4.4
  - LLD patches for x86_64
  - Backport of commit a75bb4eb9e565b9f5115e2e8c07377ce32cbe69a
  - Re: [PATCH 4.14 09/69] x86: vdso: Use $LD instead of $CC to link
- Fixed issues in the common Android and the Pixel 2 (XL) kernels by pushing various patches to Google, including some linux-stable merge issues:

    - x86: Fix RETPOLINE_CFLAGS check
    - ANDROID: Makefile: Properly resolve 4.14.112 merge
    - Makefile: Fix 4.14.93 resolution
- Maintained a set of kernel repos with linux-stable merged into them for amateur developers to use, writing a shell script to facilitate automatic merges based on resolution diffs and build testing for quality assurance, which has helped catch a merge issue in Google's Android common kernel (discussion and fix).
- Maintain a consistent development environment across different machines by developing a set of shell environment scripts and container images.
- Created a custom kernel for users to install using a company-provided OnePlus 6.

Technical Skills

- Strong foundation in shell scripting, Python, and C. Some experience with C++ and Java.
- Skilled with git, managing various repos on GitHub
- Experience with managing Linux servers, including tracking down problems after an upgrade and building upgraded versions of software using the distribution's package manager
- Started working on websites in 7th grade, employing HTML, CSS, and PHP on Apache servers

Education

B.S. Information Technology Grand Canyon University, Phoenix, AZ 2019-2022

- Final GPA of 3.44
- Dean's List in April 2020

B.S. Computer Science Arizona State University, Tempe, AZ 2013-2018, transferred to GCU

- Managed a rigorous schedule of honors, computer science, and general education courses
- GPA of 2.9 after 94 credits including 15 honors credits while working 20 hours/week
- Dean's List in College of Engineering for 2013/2014

Diploma Scottsdale Preparatory Academy, Scottsdale, AZ 2009-2013

- Excelled in an all-honors, liberal arts curriculum that included 2 years of Physics and Calculus, 4 years of Latin, and 1 year of Greek, with an overall GPA of 3.6
- Earned the Virtus ("Gumption, heart") Award by selection of the faculty in 2009
- Wrote a 15 page thesis and defended to a panel of three faculty
- Engaged great works of Western literature, such as Homer, Dante, and Shakespeare, through conversation with faculty and students.