

Alan Porter  
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NOTES TO RECRUITERS: Please email before calling. Raleigh NC area jobs only.  
No calls or emails from off-shore (India) recruiters, please.

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[SUMMARY AND KEYWORDS]

Full-stack Linux developer: Web UI, REST servers, databases, open source packages and stacks, networking, security, all the way down to device drivers. Cloud deployment: Amazon, OpenNebula, virtualization and docker/containers. Compiled languages and scripting languages. Interested in security, usability, dev-ops and best practices, modern tools and work flows.

Cloud: AWS, Ansible, Terraform and CloudFormation; Javascript: Angular.js  
Python: Django and Flask; PHP: Zend/Dojo; Linux: Debian, Ubuntu, Red Hat, Mint  
Perl, bash, C/C++, Objective-C, MVC, UX, REST, git, subversion, embedded, MySQL, open source, IPv4 & IPv6 networking, security, openssl SSL/TLS certs, SSH

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[SKILLS]

+ Web Applications

[Lancope] Developed front-end web UI components using Angular.js with a REST back end. Used gulp, HighMaps and HighCharts libraries and D3.js charts. Completed online Angular.js training course.

[Tekelec] Developed a configuration and management web interface for core-of-the-network routers used by all major US cellular carriers. LAMP AJAX application to configure and manage the network, report its status.

+ Dev-Ops, cloud, modern workflows

[Lancope] Helped engineering migrate to a dev-ops model, transitioned to a docker-based build workflow, set up Jenkins continuous integration system.

[Cisco] Modified cloud deployment scripts to handle dev/test/prod targets. Used a combination of Ansible, CloudFormation and bash scripts.

+ Linux Server Software

[Lancope] Added REST endpoints to Java web back end to support new features: dynamic user profile screens, email notifications for new accounts.

[Lancope] Wrote deployment tools in Python to read pristine OS images, crack open their filesystems, stuff in application code and repack them into OVA.

[A4] Wrote unix-based software to manage scanned hospital documents.

+ Security

[Lancope] Developed cloud-based network visibility product (beta). Achieved Cisco Security Ninja "White Belt" rank.

[Tekelec] Modified Tekelec's existing data-mining product to comply with rigorous DISA military security standards.

[TMIO] Performed a thorough security audit of the TMIO product and back-end service, ensured that the end-to-end system used best security practices.

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[SKILLS - continued]

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+ Embedded Linux

[TMIO] Developed a custom embedded Linux distribution "from scratch". It contained just 35 open source packages and 2 custom packages, and combined into a fully embedded Linux appliance.

[TMIO] Developed a remastered "Live CD" (based on Knoppix) for use in the TMIO Intelligent Oven factory. It booted into a dedicated application that wrote our appliance software onto flash cards.

+ Embedded Systems, Device Drivers

[TMIO] Created Linux /proc driver for controlling an LCD backlight, block driver for a battery-backed RAM device, and a character driver for testing.

[Ericsson] Created several device drivers for a music feature phone (before MP3's): LCD, FM radio tuner, audio amp, keypad, LEDs, I2C memory.

[Chickway] Wrote embedded C++ software for food factory weigh stations.

+ Usability and Interface Design

[TMIO] Part of a small team which designed and architected intelligent oven products. Responsible for overall product software design.

[Ericsson] Designed new keyboard layout for a teenagers' "chat phone". Acted as usability advocate for other application developers.

[Chickway] Designed the user interface and underlying GUI framework for a factory machine that weighed boxes and printed barcoded labels.

[Sentosa] Designed and developed custom iPhone application to meet client's specs. Worked with clients to design screens from scratch, made alternative designs for "calendar of wishes", tested usability with unsuspecting friends.

+ Mobile Applications

[Ericsson] Developed prototype gadgets that were used in usability tests for future concepts (camera/phone, video messages, Chinese input techniques).

[Ericsson] Developed application software for experimental market phones: "teen phone" with short range (Bluetooth) radio chat application.

[Sentosa] Three iPhone applications in the Apple App Store, including Three Wishes For A Meaningful Life, pro-bono for an international non-profit.

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[EDUCATION]

North Carolina State University, Raleigh NC

+ Master of Computer Science

Courses of interest: Real Time Systems, Network Security, Wireless Communication, Human Computer Interaction.

+ BS in Mechanical Engineering, Computer Science Minor

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[EMPLOYMENT HISTORY]

- Sep 2016 ~ present : BitSight Technologies, Raleigh NC  
Web front end and back end development on the Boston-based start-up company's flagship SaaS offering, a security ratings portal.
- Dec 2014 ~ Sep 2016 : Lancope / Cisco, Morrisville NC  
"Start-up" group developed cloud-based security product to provide visibility into networks and threats. After beta, Lancope was acquired by Cisco.
- Oct 2006 ~ Dec 2014 : Tekelec / Oracle, Morrisville NC  
Developed web GUI and business logic for 4G/LTE phone protocol router project. After project success at Tier 1 carriers, Tekelec was acquired by Oracle.
- Feb 2004 ~ Oct 2006 : TMIO, Cary NC  
Developed embedded Linux software for internet-controlled oven for homes. Participated in entire lifecycle of start-up company.
- Mar 1998 ~ Mar 2003 : Ericsson, Research Triangle Park NC  
Wrote embedded software for mobile devices, some mainstream and some experimental. Created prototypes for usability research tests.
- Oct 1996 ~ Dec 1997 : A4 Health Systems, Cary NC  
Wrote Unix-based medical records software. On-site installation, internal and customer training.
- May 1994 ~ Oct 1996 : Chickway Systems, High Point NC  
Wrote embedded software for inventory control in food processing factories.

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[ACTIVITIES AND INTERESTS]

- Sample project source code is available at <http://github.com/sudoer/> .  
See pictures, blog posts and much more detail at <http://AlanPorter.com/> .
- Active member of the Triangle Linux Users Group. Steering Committee member from 2008 to 2013 (Chair during 2009-2011).
- Attended security conferences: CarolinaCon (North Carolina) and Hack In The Box (Kuala Lumpur, Malaysia). Presented "lock picking" talk at BarCampRDU.
- Two years' study of Mandarin Chinese language.
- Amateur radio operator. Extra class license, callsign KR4JB.
- Private pilot (2006), member of Wings of Carolina flying club, Sanford NC.
- Wrote a Real Time Operating System (RTOS) called "Presto" for Motorola 68HC11 and Atmel AVR. Demonstrated its use to Triangle Amateur Robotics club.
- Publication: "Multitasking on the Cheap", Dr Dobb's Journal, February 2004. A simple way to implement multiple threads by using a cooperative scheduler.
- Interested in Geocaching and in creating and solving puzzles.  
Puzzles I created: <http://coords.info/GC118ZG> and <http://coords.info/GC18PRD>