






# BRETT SCHWARZ

Principal engineer with in-depth understanding of mobile and IT network architectures. Possess significant experience with product, service, and software life cycles. Well-rounded and effective at adapting to different environments, concepts, and technologies.

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## ✂ SKILLS

### Wireless

2G, 3G, GSM, CDMA, UMTS, LTE, messaging (SMSC), subscriber services (HLR, HSS)

### Integration

Mobile Networks, IT Networks

### Web Services

REST, OpenAPI (Swagger), JSON Schema, HTTP/1.1, HTTP/2, SOAP, WSDL, XML, GraphQL

### Network Architecture

Mobile Networks, IT Networks

### Web Development

HTML5, CSS, JavaScript, jQuery, Node.js, Knockout.js, AngularJS, Bootstrap, Foundation, Gulp, Grunt, Apache, Naviserver

### Software Development

C, Tcl/Tk, JavaScript, Python, Java, shell, Git, GitHub, CVS, SVN, Bitbucket, Agile

### Computers

Linux/Unix, Windows, Mac, TCP/IP

### Databases

PostgreSQL, SQLite, MySQL, Oracle, MongoDB

### Testing

Functional, UAT, unit, performance

## 👛 EXPERIENCE

### Principal Technical Architect, AT&T

June 2015 - Present

- Architected, developed, and productized an internal web application to automate and expedite API design, maintenance, and delivery.
- Established best practices for web services across AT&T as a member of the internal standards team.
- Oversaw and improved API design, security, and privacy for externally exposed APIs as member of the external API governance team.
- Advanced the adoption of OpenAPI (Swagger) across the company by developing tools and educating internal teams.
- Consulted and mentored internal teams on API design to optimize the solution based on project goals and existing network architecture.
- Contributed a significant amount of content and knowledge towards an internal company-wide training program for REST APIs.
- Accelerated REST adoption by authoring numerous articles on REST concepts and design, and specifically with the microservices teams.

### Solution Architect, Sentaca

June 2011 - May 2015

- Ensured proper service integration with existing architecture by collaborating with customers and internal teams on user stories.
- Designed and authored specifications for REST APIs.
- Promoted and educated customers on APIs at conferences and hack-a-thons.
- Streamlined internal documentation system by implementing tooling and process improvement.
- Developed automation tools for API verification.

### Senior Test Engineer, AT&T

October 2010 – June 2011

- Headed the performance testing efforts for the messaging platform.
- Mentored team members on mobile and IT networks.
- Developed software tools for automation, troubleshooting and to interact with the platforms.

### Senior Engineer, T-Mobile

May 2010 - October 2010

- Designed and engineered subscriber-based mobile network elements.
- Authored requirements, MOPs, and process documentation.
- Developed tools to streamline the implementation and troubleshooting.
- Successfully lead the engineering team on a complex subscriber and partner migration to a new platform.

### Technical Sales Engineer, Alcatel-Lucent

August 2008 - September 2009

- Supported sales team with technical expertise for product presentations and collaborated with internal teams on customer solutions.
- Assisted the sales team to secure a major strategic win, by educating customers on product details and mapping them to customer objectives.

## EDUCATION

BS Mathematics & Electrical  
Engineering (Honors)  
University of Toledo

Nanodegree Front End Web  
Developer  
Udacity

## PUBLICATIONS

Asterisk Open-Source PBX  
System  
Linux Journal – February 2004  
<http://www.linuxjournal.com/article/6769>

Hacking Red Hat Kickstart  
Linux Journal – April 2003  
<http://www.linuxjournal.com/article/6473>

## LANGUAGES

English	<div><div></div></div>
Spanish	<div><div></div></div>
German	<div><div></div></div>
Mandarin	<div><div></div></div>

## EXPERIENCE (cont)

Senior Network Systems Engineer, Alcatel-Lucent Nov 2005 - Aug 2008

- Headed the performance optimization customer team from an engineering and project management role.
- Reduced turnaround time and increased effectiveness of statistics reporting by developing an internal web-based reporting tool.
- Accelerated customer's understanding of the products by providing presentations and weekly performance updates.
- Improved resolution time of performance issues by assisting the customer and internal teams in analyzing statistics.
- Improved internal understanding of the product's performance by collaborating with development and system engineering.

Implementation Engineer, HMS Software Jan 2005 – Nov 2005

- Translated requirements from the customer into customized code that implemented new features into our standard software product (manufacturing ERP).
- Performed testing, managed all bug fixes and collaborated with the customer on the integration of the solution.
- Increased productivity by mentoring other engineers in the Tcl programming language.
- Optimized legacy code by conforming code to new features

Senior Engineer, AT&T Wireless April 2003 – December 2004

- Engineered messaging platforms (e.g. SMSCs) within the company's mobile network.
- Worked with the vendor to find the optimal solution and verification of the solution.
- Reduced response time and improved quality by developing several software tools.

Lead Network Engineer, PacketVideo Corporation June 2000 – April 2002

- Designed, tested and integrated our server (Linux) platform installation and architecture.
- Lead first complete integration effort of our product line into the customer's network (JSP and servlets on Apache/Tomcat).
- Significantly reduced cycle time and improved quality by developing a customized RedHat Linux Kickstart installation.
- Improved internal communication by developing a web application for installation activities.
- Provided pre and post-sales support, including presentations for the customers.

Lead Systems Engineer, Motorola October 1996 – June 2000

- Designed, tested and integrated products into the customer's mobile network.
- Lead several major network changeouts for the engineering team.
- Enhanced subscriber accessibility by developing procedure and software tools to migrate/modify subscribers efficiently and in a significantly reduced time frame.