

Brett Schwarz

Principal engineer with in-depth understanding of mobile and IT network architectures. Possess significant experience with product, service, and software life cycles, and customer engagement. 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), OAuth 2.0, JSON Schema, HTTP/1.1, HTTP/2, WebSockets, SOAP, WSDL, XML, GraphQL, RAML

Network Architecture

Mobile Networks, IT Networks, TCP/IP, OSI, AWS Services, Azure Services

Web Development

HTML5, CSS, JavaScript, jQuery, Knockout.js, AngularJS, Bootstrap, Foundation, Gulp, Grunt, Apache, Nginx, Tomcat

Software Development

Tcl/Tk, Node.js/Express, C, Python, Java, shell, Agile, Alexa

Computers

Linux/Unix, Windows, Mac, MS Office

Datastores

PostgreSQL, SQLite, MySQL, Oracle, MongoDB, DynamoDB, Redis, Memcached

DevSecOps

Git, GitHub, Bitbucket, CVS, SVN, Jenkins, Travis CI, SonarQube, Kubernetes, Docker

📁 Experience

Principal System Engineer, AT&T

June 2015 - Present

- Envisioned, evangelized, architected, developed, and productized an internal web application that reduced costs and sped up delivery by at least 50%.
- Established best practices for REST web services across all of AT&T as a member of the internal standards team.
- Oversaw and improved API design, security, and privacy for externally exposed APIs (at least two per week) as a member of the API governance.
- Advanced the adoption of OpenAPI (Swagger) across the company by developing tools and educating internal teams.
- Consulted and mentored internal teams (specifically microservices) on API design to optimize the solution based on project goals and existing network architecture (at least one per week).
- Accelerated REST adoption by authoring numerous articles on REST concepts/design and collaborating on a company-wide training program.

Solution Architect, Sentaca

June 2011 - May 2015

- Ensured optimal solution by collaborating with customers and internal teams on technical and business requirements.
- Collaborated on the architecture of end to end solutions for the service exposure layer of enterprise and consumer services.
- Promoted API solutions at conferences and hack-a-thons by educating and demonstrating to customers the solution's capabilities.
- Deployed and tested API solutions with high availability, scalability, and low latency design criteria into the Amazon AWS EC2 and AT&T AIC cloud.
- Designed a new documentation system improving workflow and quality.

Senior Test Engineer, AT&T

October 2010 - June 2011

- Headed the performance testing efforts for the messaging platform, including authoring test cases, test case execution, and managing defects.
- Mentored team members on mobile and IT networks, by holding periodic workshops and consulting on projects.
- Developed software tools for automation and troubleshooting.

Senior Engineer, T-Mobile

May 2010 - October 2010

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

Technical Sales Engineer, Alcatel-Lucent

August 2008 - September 2009

- Supported sales team with technical expertise for product presentations and consultations to the customer up to the VP level.
- Achieved highest-ranked sales engineer status by assisting the sales team to secure a major strategic win.

Education

BS Mathematics & Electrical Engineering (Honors)

University of Toledo

Nanodegree Front End Web Developer

Udacity

Certifications

AWS Certified Solutions Architect - Associate

Certificate badge AWS01128751

Publications

Asterisk Open-Source PBX System

Linux Journal – February 2004
www.linuxjournal.com/article/6769

Hacking Red Hat Kickstart

Linux Journal – April 2003
www.linuxjournal.com/article/6473

Languages

English 

Spanish 

German 

Mandarin 

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.
- Accelerated customer's understanding of the products by providing presentations and weekly performance updates to the customer up to the VP level, on the core network (GSM, UMTS).
- Reduced turnaround time and increased effectiveness of statistics reporting by developing an internal web-based reporting tool.
- Collaborated with development and system engineering on performance issues to improve the product's performance.

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 *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.