Brett Schwarz

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

✉ brett.schwarz@gmail.com   📱 +1.425.466.1731   🌐 Bellevue, WA, USA   ⚙ bschwarz.github.io   in brettschwarz

⚒ Skills

Web Services
REST, OpenAPI (Swagger), OAuth 2.0, JSON Schema, HTTP/1.1, HTTP/2, WebSockets, SOAP, WSDL, XML, GraphQL, RAML

Network Architecture
Azure, AWS, Mobile Networks (3G, UMTS, LTE), IT Networks, TCP/IP, OSI

Web Development
HTML5, CSS, JavaScript, jQuery, Knockout.js, Angular, Svelte, Bootstrap, Foundation, Gulp, Grunt, Express, Flask, Apache, Naviserver, Tomcat

Software Languages
Tcl/Tk, JavaScript, Node.js, Python, C, Java, shell

Software Technologies
Git, GitHub, Bitbucket, CVS, SVN, Jenkins, Travis CI, SonarQube, Kubernetes, Docker, Agile, Terraform, Packer, Alexa SDK

Datastores
PostgreSQL, SQLite, MySQL, Oracle, MongoDB, DynamoDB, Redis, Memcached, Cosmos DB

🖾 Certifications

AWS Certified Solutions Architect - Associate
Certificate badge AWS01128751

Microsoft Certified: Azure Fundamentals
Certificate badge

💼 Experience

Principal System Engineer, AT&T/TechMahindra
June 2015 - Present

- Assisted in the development and the architecture of the machine language platform, consisting of multiple microservices, datastores, and a web application.
- Migrated the machine language platform to Azure (AKS, DevOps, Storage, Key Vault, Cosmos DB) to take advantage of cloud services.
- Envisioned, evangelized, architected, developed, and productized an internal web application for REST API design that reduced costs and sped up delivery by at least 50%. Consists of multiple microservices deployed to a Kubernetes environment.
- 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 (over a hundred unique APIs) as a member of the API governance.
- Consulted and mentored internal teams weekly on API design to optimize the solution based on project goals and existing network architecture.
- Accelerated REST adoption by authoring internal best practice articles on REST concepts/design and leading a company-wide REST training program.

Solution Architect, Sentaca
June 2011 - May 2015

- Lead and mentored a team of 8-10 engineers for the developer program, including API design, demo/sample apps, documentation, and support.
- Promoted API solutions at conferences and hack-a-thons by educating and demonstrating to customers the solution's capabilities.
- Implemented a new API documentation system which reduced delivery time by 30%.

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 various projects.
- Developed software tools for automation, testing, and troubleshooting of APIs.

Senior Engineer, T-Mobile
May 2010 - October 2010

- Designed, engineered, and supervised subscriber-based mobile network elements.
- Successfully lead the engineering team on a complex (total replacement) subscriber migration across the entire network.
- Developed tools to streamline the implementation and troubleshooting of services.

Technical Sales Engineer, Alcatel-Lucent
August 2008 - September 2009

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

♜ Education

BS Mathematics & BS Electrical Engineering (Honors)
University of Toledo

Front End Web Developer Nanodegree
Udacity

Machine Learning Engineer Nanodegree
Udacity – currently enrolled
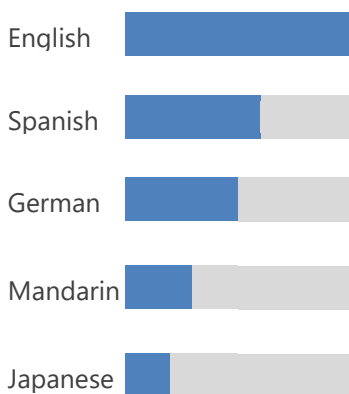
🗐 Publications

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

Japanese

💼 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, and improved network performance by 10%.
- 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 (ETL, server, and client-side).
- 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 the server (Linux) platform installation for both domestic and internal integrations.
- Lead the first complete integration effort of the 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 for field installations and sales demos.
- Improved internal communication by developing a web application for installation activities, knowledge base, and configuration generation.
- Provided pre-sales and post-sales support, including presentations for the customers globally.

▶ Lead Systems Engineer, Motorola   *October 1996 – June 2000*
- Designed, tested and integrated products into the customer's mobile network, for both domestic and international customers.
- Lead several major network changeouts for the engineering team.
- Enhanced subscriber accessibility by developing procedures and software tools to migrate/modify subscribers efficiently and in a significantly reduced time frame.