

KYLE TIPPETTS

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Technical Skills:

Software Engineering:

- Java software design and engineering
- J2EE/web application development: Web Services (ReSTful and SOAP), EJB3/JPA, JSP, tag libraries, servlets, message-driven beans
- APIs, libraries, and frameworks: AngularJS, jQuery, JDBC, JMS, Spring, SpringBoot, Hibernate, Jersey/JAX-RS, junit, CXF, Axis, JDF, Struts/Struts2, Wicket
- Containers and application servers: jBoss, Tomcat, RabbitMQ
- Java, Python, PHP, and JavaScript development, Bash scripting, embedded software design and development, C/C++, Win32, Visual Basic.
- Agile project and team management.

Software Architecture:

- Amazon AWS: VPC, EC2, CloudFormation, Lambda, S3, API Gateway, RDS, DynamoDB, ElastiCache, SNS, SQS, Echo/Alexa, Systems Service Manager (SSM)
- Linux, Windows, and Unix operating systems-based development.
- Virtualization using VMWare/V-Sphere, and AWS EC2
- Relational databases: AWS RDS (MySQL, Aurora), Oracle, PostgreSQL, mySQL, SQL Server, MS-Access database development.
- No-SQL databases: MongoDB, DynamoDB
- Object Oriented design including inheritance, polymorphism, interfaces, patterns, UML, componentization.
- XML, XSLT, JSON
- Tools: Ant, Git (Github, Gitlab, Bitbucket), Eclipse/MyEclipse, IntelliJ, Atom, Vim, Visual C++, Embedded Visual C++, Platform Builder, CodeWarrior (ARM SA1100 and Motorola DSP56858), CVS, SVN, Perforce, Chef, Saltstack, Icinga, Ganglia, Splunk, Jenkins, Cruise Control, Ivy

Management and Product Management, Requirements Capture and Documentation:

Translation of customer requirements into engineering specifications.

Tools including Rational Rose, Adobe Acrobat, FrameMaker, PhotoShop, InDesign, Illustrator, RoboHelp.

Agile project and team management: scrum master, product owner, development teams

Work Experience and Accomplishments:

Workfront, Lehi, Utah

Principal Engineer and Technical Lead, Cloud Engineering, January 2017 – present

- Led cross-functional international team that moved an entire hosted ecosystem from Rackspace to AWS.
- Architected and built additional virtual datacenter in AWS, separating out infrastructure services to provide enhanced isolation, security, scalability, and reliability.
- Architected, developed, and implemented AWS account provisioning automation using Python scripts and AWS Lambda to orchestrate the creation of multiple service team accounts in AWS.
- Architected and built AWS cross-account role assumption system that secures AWS account access.
- Compute chapter (or practice) lead, responsible for developing and implementing compute resource automation, policies, procedures, guidelines, guardrails, and governance.
- Mentored other team members so that they could lead major infrastructure and operations governance, datacenter closure, and other major initiatives.

Workfront, Lehi, Utah

Senior Cloud Engineer, Cloud Engineering, September 2014 – 2016

- Developed CloudFormation template strategy for building Workfront infrastructure in AWS.
- Architected and implemented custom application to build and manage virtual datacenters using CloudFormation templates.
- Architected and built resource tag monitoring system using AWS services: Lambda, SNS, SES, RDS, ElastiCache, S3, CloudWatch Log Events. Built CloudWatch dashboards to monitor the health of the tag monitor system. System alerts based on tag changes that do not comply with tag rules.
- Architected and built virtual datacenters, datacenter services, and application services for Workfront's EMEA clusters using CloudFormation.
- Researched and implemented ELK (Elasticsearch, Logstash, Kibana) proof-of concept for Workfront application log and metric monitoring that was used as the starting point for a production implementation. System ended up providing additional insights into Workfront application performance that were used to eliminate performance bottlenecks.

InsideSales.com, Provo, Utah

Platform Development Manager, January 2014 – September 2014

- Manage 4 teams responsible for developing general UI/UX components, internal ReST services, domain services, and integration services.
- Responsible for architecture, design, and deployment of these services.
- Oversaw the architecture, design, implementation, and deployment of a ReST-based identity management system (comprised of user management, authentication, and authorization)
- Implemented AngularJS service component to provide ReST client connections to the authentication ReST service.
- Designed and implemented a Chrome extension to track emails sent from Gmail using AngularJS, jQuery, and Javascript.
- Researched and discovered how to manipulate the Gmail DOM using AngularJS to add custom HTML elements for the tracking application.

Hewlett-Packard (HP), American Fork, Utah

Engineering Manager, Universal Account Services/Email Services, Snapfish Division, 2012-January 2014

- Managed a team of 3 engineers and one product owner. Responsible for overall architecture and direction of the team.
- Responsible for architecture, design, and deployment of a ReST-based user account web service.
- Oversaw the architecture, design, and implementation of an account migration strategy to migrate existing accounts to the new user account web service.
- Architected a web service middle layer that facilitates restricted persons searching during e-commerce transactions.
- Responsible for architecting, designing, building, and deployment of a ReST-based email web service, together with a notification service/message bus to be used for event-driven email activity.
- Designed and oversaw implementation of a continuous integration/continuous deployment system using Aptitude, Chef, and Jenkins.

Hewlett-Packard (HP), American Fork, Utah

Senior Software Engineer, Snapfish Division 2011-2012

- Maintained data feed system used to provide customer data to the Snapfish promotional email engine. Created new system functionality and sql scripts to facilitate new data feeds.
- Designed and implemented a data feed subsystem to package and upload data files.
- Architected, designed, and implemented an ETL/Datafeed front end that let users configure data feed jobs,

including upload/download destination, recurrence, and so forth. This system was designed to replace the legacy data feed system currently in use.

- Designed and implemented a proof-of-concept data access layer that unified Hibernate and Morphia (a MongoDB data access library) so that applications could use one point of access to read data from MongoDB through Morphia, and write/update data to a relational database through Hibernate.

Hewlett-Packard (HP), American Fork, Utah

Senior Software Engineer March 2007 – 2010

- Part of the architecture team that designed a new web-based system to facilitate do-it-yourself marketing collateral creation and purchase. Involved in all aspects of database and data layer design and implementation, e-commerce subsystem design and implementation, and other core subsystem pieces.
- Designed and implemented e-commerce subsystem to handle customer transactions between our system and HP's financial system, which included managing complex tax calculations and purchase transactions.
- Designed and implemented PCI-compliant encryption system to protect customer's personal data such as credit card numbers and passwords.
- Designed and implemented application configuration subsystem that allowed the application to get configuration data from various sources (database, properties file, etc).
- Designed and implemented object caching system to cache frequently used data and service objects.
- E-commerce team lead: led the e-commerce team in maintaining and enhancing the e-commerce subsystem.
- Engineering lead on several successful development projects; managed 8-10 engineers tasked with developing new features and enhancements for existing web application system.

Vision Investing Group, American Fork Utah

Systems Engineer December 2003 – March 2007

- Implemented Java-based CRM/ERP open source software package (OFBiz; Open For Business) to replace existing Visual Basic/Access system. (OFBiz is Java-based and uses a custom MVC framework built with JSP and Servlet)
- Designed and implemented an automated data record import process to populate new CRM/ERP system with customer data from the old system.
- Responsible for architecting, designing, integrating, and implementing an automated billing system into the the CRM/ERP system in Java.
- Designed and integrated a subscription management system into the current CRM/ERP system.
- Designed and implemented a PHP-based order processing system.

Center 7, Provo, Utah

Java Engineer July 2003 – March 2004

- Responsible for troubleshooting and fixing existing enterprise management/Java integration points.
- Added additional functionality to administration web application (raw sql queries, additional report types).
- Fixed software issues in administration web application (help system initialization, search system, reports).
- Documented entire system architecture and extended and enhanced collaboration platform security features using Perl.

Xabler, Provo, Utah

Java Engineer April 2003 – September 2003

- Assisted in architecting, and designed and developed new end-to-end home automation application using J2EE, Struts, Velocity, and iBatis APIs and frameworks.
- Designed and built core server pieces used as a live status repository for all devices connected to the home automation system.
- Designed and built a servlet using Velocity that delivers content in an XML document for use with a Flash web front end.
- Built and ran unit tests for each class using the junit testing framework.
- Used ability to quickly learn and apply knowledge to rapidly understand problem domain and requirements.
- Used object-oriented architecture and design principles to make the system easily extensible and maintainable.
- Met all projected dates for component completion.

Fonix, Draper, Utah

Embedded Software Engineer/Web Applications Engineer. April 2002 – June 2003

- Designed and developed web application modules for the internal system to track sales forecast/project initiation data.
- Designed and developed Java-based web application for the testing department to organize, track, and report application testing results.
- Developed WinCE and Win32 applications that used Fonix speech api sets. Ported Fonix ASR/TTS demo application for the Texas Instruments OMAP hardware platform.
- Developed text-to-speech application to run on an ARM SA1100 non-OS evaluation board.
- Developed Java-based web application to store Quality Assurance test case data in a database for later retrieval and analysis.
- Used ability to quickly learn and apply knowledge to rapidly understand new platforms and hardware and design/develop solutions.
- Port of demo application resulted in Fonix' acceptance as a TI Development Partner.

Center 7, Lindon, Utah

Software Engineer. June 2000 – March 2002

- Designed and developed applications that extended the functionality and access to enterprise management systems (CA Unicenter). Created the presentation, presentation logic, and business logic layers of the applications in Java (JSP and servlet).
- Designed and built a J2EE web application that provided administration to an Oracle statistics database. The code base included JSP, tag libraries, business logic classes, and the data access layer.
- Created a generic user authentication module that is now used in multiple authentication scenarios.
- Used rapid development methods to reduce application development cycles by 20%.
- Used object-oriented design principles to quickly incorporate requirements changes and enable future growth modifications.
- Met all requirements for time and cost budgets.

Manager, Customer Requirements and Documentation. February 2000 – June 2000

- Managed a team of six business and system analysts. Gathered, documented, and prepared requirements for Center 7 enterprise management products.
- Gathered, documented, and prepared requirements for customer web and enterprise applications.
- Developed a requirements capture process that ensured the accurate, timely match between customer needs and software development engineering specifications.

Ameritech Library Services / Epixtech, Provo, Utah

Documentation Manager. May 1997 – February 2000

- Managed a team of nine writers and one editor and an operating budget of over \$500,000. Designed and implemented the documentation development process that remains in use.
- Pioneered a method for delivering electronic documentation via the Internet.
- Developed and implemented an efficient, re-usable documentation template system that reduced documentation timelines and costs.

Education:

1992 **Bachelor of Arts, International Relations and Japanese,** Brigham Young University, Provo, Utah.