

John Ryan Bard

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PURPOSE

To obtain a software developer position and grow in an interesting language or domain.

Interests:

- C / C++	- Go	- Lisp / Clojure
- Elixir	- JavaScript	- Rust

WORK EXPERIENCE

Jul 6th 2021 – present
Flock Safety
Software Developer

Contributed to the design and implementation of back-end software handling automated license plate readers, audio detection, automatic vehicle location, drones, and computer aided dispatch.

Achievements:

- Revitalized the unit tests that were only present in a few microservices, expanded them into many modules, improved them, and encouraged others to write them
- Implemented the first integration tests at the company, and helped come up with plans to automatically run them as part of our builds
- Implemented a microservice similar to postbin to allow testing of interactions with 3rd party apis and our exporting into them, which was severely under tested before that
- Revitalized the smoke tests at the company, encouraged these tests to be part of the requirements of features, and implemented around 50% of those tests offering much needed automated testing for several microservices
- Implemented a common lib to offer reasonable OAuth2 behavior (fetch and cache tokens as needed before making an api call, invalidate and re-fetch when getting a 401, try to pre-fetch a token before the current expires, etc.) and reduces all of the duplicated OAuth2 handling code, while fixing bugs, improving performance, and reducing our Auth0 quota usage
- Helped design, implement, and improve a circuit breaker lib, as well as leveraged it to improve the stability of several services
- Designed and implemented a way to offer OAuth2 for customer facing APIs via Auth0 instead of implementing our own auth server
- Designed and reviewed the implementation of a mechanism to batch exporting of our data through webhooks, to improve the performance of our system, and reduce stress on the systems

- receiving our webhooks
- Redesigned and implemented improvements to our websockets service to be more performant with broadcasting
- Redesigned and reimplemented our mechanism of having a message driven architecture from using a sidecar to handle sqs messages to using a library, which eased the pain of our hpa scaling, and reduced resource usage
- Helped design and implement data warehousing for reports against the prod database that were slow and taxing

Technologies:

- | | | |
|-------------------------------|--------------------------|----------------------------------|
| - golang 1.16-1.21 | - npm | - aws elasticache (redis) |
| - sirupsen/logrus | - expressjs | - aws opensearch (elasticsearch) |
| - gin-gonic/gin | - typescript (4.6-4.8) | - aws eks (kubernetes) |
| - gorilla/mux | - jest | - aws lambda |
| - go-redis | - mocha | - aws cloudwatch |
| - aws-sdk-go (v1-v2) | - chai | - docker |
| - go-playground/validator/v10 | - superagent | - grafana |
| - auth0/go-jwt-middleware | - fetch | - prometheus |
| - form3tech-oss/jwt-go | - ioredis | - helm charts |
| - golang-jwt/jwt | - winston | - terraform |
| - pkg/errors | - inversify | - datadog |
| - stretchr/testify | - p-map | - logdna |
| - jmoiron/sqlx | - p-settle | - grpc |
| - uptrace/bun | - lodash | - rest |
| - kelseyhightower/envconfig | - massivejs | - websockets |
| - prometheus/client_golang | - aws s3 | - postman |
| - python (2.7, 3.10) | - aws sqs/sns | - curl |
| - scala (2.11.8) | - aws dynamodb | - bash |
| - nodejs (12-20) | - aws rds (sql/postgres) | - git |

Soft Skills:

- | | | |
|----------------|-----------|--------------|
| - VS Code | - Github | - Confluence |
| - Sublime Text | - Jenkins | - Jira |

Jan 19th 2021 – June 3rd 2021

Travel Syndication Technology (TST)

Software Developer

Contributed to the development of travel web applications (booking flights, rooms, rental cars, etc.)

Technologies:

- | | | |
|----------------|--------------|----------|
| - Scala (2.12) | - MySQL | - Docker |
| - Play | - MongoDB | - Bash |
| - Hibernate | - JavaScript | - Git |

Soft Skills:

- | | | |
|-----------|------------|----------------|
| - Jenkins | - IntelliJ | - Github |
| - Jira | - Kibana | - Sublime Text |

Oct 2nd 2017 – Jan 15th 2021

VMware AirWatch

Senior MTS - Java

Contributed to the development of front-end and back-end software for mobile devices and web applications.

Achievements:

- Quickly ramped up on domain and project knowledge
- Wrote several "Connectors" for interfacing with APIs such as GitHub, GitLab, ServiceNow, etc.
- Reduced a project from about 2100 lines of java code + config running in EC2 to a little under 700 lines of javascript code + config running in AWS Lambda
- Wrote many mock backends and simple test connectors in NodeJS to help developers/QA/management test and to help Sales demo the product

Technologies:

- | | | |
|------------------|------------------------|---------------------------|
| - JavaScript | - RxJava | - bash |
| - NodeJS (v4-v8) | - Hibernate | - curl |
| - NPM | - JUnit | - Postman |
| - ExpressJS | - Guava | - AWS RDS (SQL/Postgres) |
| - Mocha | - Jackson | - AWS Elasticache (redis) |
| - Chai | - slf4j | - AWS EC2 |
| - ElectronJS | - Maven | - AWS ECS |
| - HandlebarsJS | - HAL | - AWS Fargate |
| - Gulp | - NoSQL (Redis) | - AWS CloudFormation |
| - Swift | - OAuth2/OpenIDConnect | - AWS Lambda |
| - Java 8-14 | - JWT | AWS CloudWatch |
| - Spring Boot | - git | |

Soft Skills:

- | | | |
|-------------|----------|------------|
| - Kibana | - Jira | - IntelliJ |
| - Bitbucket | - Github | - Xcode |

- Confluence
- Bamboo
- Sublime Text

Feb 20th 2017 – Apr 21st 2017

The Home Depot

Senior Java Developer

Contributed to the development of front-end and back-end software for a webapp to manage the products sold in stores.

Achievements:

- Quickly ramped up on domain and project knowledge

Technologies:

- | | | |
|--------------------|------------------|----------------|
| - Javascript | - Spring Web MVC | - git |
| - AngularJS 1.5 | - Spring Data | - bash |
| - Angular Material | - Hibernate | - curl |
| - Sass (CSS) | - Junit | - netcat |
| - JasmineJS | - Guava | - Postman |
| - Protractor | - Jackson | - Newman |
| - NodeJS | - slf4j | - IntelliJ |
| - Gulp | - Gradle | - Sublime Text |
| - Java 1.8 | - Mybatis | |
| - Spring Boot | - SQL (MySQL) | |

Soft Skills:

- | | | |
|-------------------------|-------------------|----------|
| - Pivotal Cloud Foundry | - Pivotal Tracker | - Github |
| - Jenkins | | |

May 12th 2014 – February 17th 2017

Georgia Tech Research Institute

Research Scientist

Designed and developed front-end and back-end software for webapps mimicking google's services (mail, drive, etc.) but focusing on security.

Achievements:

- Met aggressive deadlines on a very late project
- Created the first unit tests for that project
- Researched and implemented significant parts of an SMTP & IMAP server for a proof of

concept in under a month

Technologies:

- | | | |
|---------------------|---------------------------|----------------|
| - Javascript | - SELinux | - PL/SQL |
| - AngularJS 1.2-1.5 | - TypeSafe Config | - git |
| - Angular Material | - Guava | - NodeJS |
| - UI Bootstrap | - Guice | - SMTP |
| - LESS (CSS) | - Jackson | - IMAP |
| - RequireJS | - JAX-RS (Jersey) | - WireShark |
| - Java 1.7 | - Spring Web MVC | - iptables |
| - JEE | - REST | - bash |
| - Junit | - JSON | - curl |
| - TestNG | - slf4j | - telnet |
| - Groovy | - Tuckey UrlRewriteFilter | - netcat |
| - Spock | - JasmineJS | - Jmeter |
| - Gradle | - Metrics (Dropwizard) | - IntelliJ |
| - Gulp | - AMQP (Apache Qpid) | - Sublime Text |
| - Maven | - SQL (Oracle) | - RHEL |

Soft Skills:

- | | | |
|-----------|-------------------|--------------|
| - JIRA | - Stash/BitBucket | - Confluence |
| - Jenkins | - Bamboo | |

February 4th 2013 - May 9th 2014

Ericsson

Senior Software Engineer

Developed back-end software that supports many aspects of Video On Demand. This included rentals, bookmarks, setup and teardown of HTTP / RTSP / DSMCC sessions, generating URLs for CDNs, applying concurrency restrictions, authenticating requests, saving statistics, and issuing alerts.

Achievements:

- Created scripts and wiki pages for consistent dev deployment steps
- Created the first automated smoke/integration tests
- Helped build tools for QA to leverage when writing automated tests (sdk wrapper for auth testing, tweaked the RTSP Jmeter plugin, created a CDN simulator, created a DSMCC Jmeter plugin)
- Fixed the CI configuration (adjusted when nightly builds ran, turned on unit test running)
- Cleaned up code in various modules

Technologies:

- | | | |
|--------------------|---------------------|----------------|
| - Erlang R15 & R16 | - JSON | - Mongoid 2 |
| - Rebar | - NoSQL (MongoDB) | - git |
| - MochiWeb | - AMQP (RabbitMQ) | - bash |
| - Cowboy | - Ruby 1.9 | - yum |
| - WebMachine | - Ruby on Rails 3.2 | - Jenkins |
| - Meck | - RVM | - curl |
| - Emongo | - Bundler | - Jmeter |
| - REST | - Rake | - Java 1.7 |
| - RTSP | - Rspec | - Sublime Text |
| - DSMCC | - Decent Exposure | - Eclipse |

Soft Skills:

- | | | |
|-------------|----------|--------------|
| - Gitorious | - GitHub | - VersionOne |
|-------------|----------|--------------|

September 4th 2012 - January 18th 2013

Altisource

Senior Software Engineer

Developed software involved in migrating backlog data and synchronizing live updates of that data from a legacy database to the new products' MySQL database.

Achievements:

- Added the first true unit tests
- Cleaned up integration tests
- Optimized and cleaned up the build
- Prepared the project for CI (Bamboo)
- Corrected anti-patterns throughout the project (and a few bugs)
- Cleaned up tons of compiler warnings
- Changed the process of developers running locally (and running integration tests) against a shared database to everyone running against their own local instance of MySQL

Technologies:

- | | | |
|----------------------|---------------|--------------------|
| - Java 1.7 | - Groovy | - rpm |
| - Mockito | - JSON | - Chef |
| - Mybatis | - Maven 3 | - AMQP (RabbitMQ) |
| - Spring Integration | - SQL (MySQL) | - Metrics (Yammer) |
| - Spring REST Client | - git | - Eclipse |

Soft Skills:

- | | | |
|----------|-----------|--------------|
| - Bamboo | - Fisheye | - Confluence |
|----------|-----------|--------------|

- JIRA

February 12th 2008 - August 31st 2012

MModal (formerly MedQuist)

Software Architect

Architected, designed, and developed software for medical transcription services. Used various technologies including EJB, Hibernate, Spring, etc.

Achievements:

- Set up Splunk to index logs and email alerts for errors in dev, QA, and PT
- Refactored many pieces of legacy JDBC and stored procedure code to use Spring JdbcTemplate and JPA Entities
- Ported over a series of DB scripts to create a schema from scratch from 1 project to another so I could have a repeatable fresh environment separate from our shared dev environment (there was only the shared dev environment to test on for this project)
- With Talend Open Studio, I took a month to rewrite an archive and purge solution that took one of our DBAs a year to develop in PL/SQL (and didn't solve all of the requirements)

Technologies:

- | | | |
|--------------------------------|------------------------------|---|
| - Java 1.5 & 1.6 | - JDBC | - Bash Scripting |
| - Maven 2 | - Selenium | - EJB3 (JTA, Stateless Session, MDBs, Interceptors) |
| - JMS | - Talend Open Studio | - Splunk 3 & 4 |
| - Apache Struts1 | - slf4j | - Batch Scripting |
| - PMD | - Logging (JDK Logger) | - J2EE (JSP, Custom Taglibs, Servlets) |
| - JBoss 4.0.5, 4.2, 4.3, & 5.1 | - SoapUI | - XML (DOM, XSLT, Xpath, Xquery) |
| - Tiles | - JProfiler | - OSB (Oracle Service Bus - Oracle's ESB) |
| - Cobertura | - Jaxb | - Python/IronPython/Jython |
| - JMX MBeans | - AspectJ | |
| - Javascript | - Oracle Coherence (as a 2nd | - Spring Framework (core, tx, ws, jdbc, |
| - JUnit 3 & 4 | level cache for Hibernate) | webmvc) |
| - PL/SQL | - Groovy | - C# (consumed our webservice by |
| - JPA (Hibernate) | - Velocity Templates | writing test apps in C#) |
| - EasyMock | - EJB2 (Stateless Session) | - Eclipse |
| - SQL (Oracle) | - sed/awk | |

August 1st 2007 - February 11th 2008

Guru Software Services

Software Engineer – Lead Developer

I was the Lead Developer in the U.S. I interfaced with customers and managed an outsource team in India. I primarily developed in J2EE technologies with Eclipse. I used Spring Framework for dependency injection, Apache Commons for logging, and Hibernate for Object-Relational Mapping. I

created and maintained webapps with JSP that were tested in Apache Tomcat and wrote the Ant build files for deployment (in both Windows and Linux environment). I also researched the control of scanners with JTwain and the re-writing of a TWAIN wrapper for Java.

Responsibilities:

- Gather requirements from customer and fine tuned these requirements in daily/weekly meetings
- Design interfaces and create associated documentation (screen shots & storyboards)
- Oversee the functionality & development of the user interface
- Design the implementation and create the design documents (UML)
- Estimate the initial time bids for projects
- Communicate the requirements to the outsource team in India
- Code review (and intervene when problems arise)
- Q/A test in both Windows and Linux environments
- Customer acceptance test and make any modifications to the project

Technologies:

- | | | |
|---------------------------|--------------------|-----------------|
| - Java 1.4 | - Spring Framework | - Apache Tomcat |
| - J2EE | - Apache Ant | - HTML |
| - Commons Logging (log4j) | - JNI | - CSS |
| - Jtwain/TWAIN | - Hibernate | - JSP |

May 21st 2007 - July 31st 2007

Guru Software Services (via Georgia Tech)

Software Engineer – Team Lead

I was the Team Lead in the development of the Rates Management Module of the Logi-soft software. We created a JSP webapp for managing shipping rates and calculating estimates for trucking costs. We used Hibernate for ORM and tested in Tomcat. In addition to developing the JSP pages and Hibernate code, I personally setup and managed a CVS repository as well as wrote the Ant build file and handled the deployment and delivery of the module to Guru Software Services.

Technologies:

- | | | |
|--------------|-----------------|-------|
| - Java 1.4 | - Hibernate | - CSS |
| - J2EE | - Apache Tomcat | - JSP |
| - Apache Ant | - HTML | |

HOBBIES

Almost all of my hobbies are centered around computers and technology. If the Zombie Apocalypse ever comes, I'm in trouble.

- | | | |
|--------------|-----------|---------|
| - JavaScript | - Clojure | - ANTLR |
|--------------|-----------|---------|

- KnockoutJS
- NodeJS (Express, Mongoose)
- Python
- Groovy
- Grails
- Raspberry Pi
- Perl
- Ruby
- Rails
- YAWS
- C
- C++
- Qt
- GTK+
- Arduino
- Objective-C
- Smalltalk
- MongoDB
- Lex & Yacc
- Debian
- FreeBSD
- Lua
- WebRTC
- HTML5 (Canvas, LocalStorage, WebSocket, WebWorker)
- Elixir
- Homebrewing (beer, mead, cider)

EDUCATION

B.S. in Computer Science
Georgia Institute of Technology
Graduated: December 2007
GPA: 3.05
Major GPA: 3.44

REFERENCES

Available upon request