Amir Boroumand

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TECHNICAL SKILLS

Java | Spring Boot | REST API | AWS | SQL | TypeScript | JavaScript | React | Postgres | Python | Redis
Terraform | GitHub Actions | Docker | Kubernetes | Kafka | Splunk | Liquibase

WORK EXPERIENCE

Capital Technology Group (CTG) | Remote   **May 2020 – Present**
Principal Software Engineer (Nov 2023 - Present)
Senior Software Engineer (May 2020 - Nov 2023)
- Member of a technology modernization team at U.S. Citizenship and Immigration Services (USCIS).
- Develop and maintain the full-stack architecture for a national appointment scheduling system handling 2.5 million applicant appointments annually, used by 4,000 end users across 100+ field offices.
  - **Stack**: Java 17, Spring Boot 3.x, Hibernate, MyBatis, React, TypeScript, Postgres, Gradle, Linux, Docker, Kubernetes, AWS (EKS, RDS, S3, ElastiCache/Redis), GitHub Actions, Liquibase, Splunk
- Serve as technical lead on high-impact projects including case workload sharing which helped reduce nationwide appointment backlog by 15% and cut application processing times by 40%.
- Modernized legacy APIs to follow REST principles, implementing standardized error handling, OIDC/OAuth2 security, and response caching for improved reliability and performance.
- Proactively reduce technical debt by refactoring code, optimizing queries, and improving maintainability.
- Maintain 80% test coverage for both backend (JUnit) and frontend (React Testing Library & Jest), using SonarQube for static code analysis and code quality enforcement.
- Collaborate with the scrum master to refine product feature requests into actionable user stories and technical tasks, ensuring clear acceptance criteria and development roadmap.
- Led effort to implement API rate limiting to reduce the service disruptions caused by high request volumes.
- Containerized applications with Docker and deployed them to a Kubernetes cluster on AWS.
- Create and manage AWS resources using Terraform following Infrastructure as Code (IaC) principles.
- Migrated CI/CD pipelines from Jenkins to GitHub Actions, reducing build times and pipeline failures by 20%.
- Worked with multiple teams to migrate UI from AngularJS to React to improve maintainability.
- Assisted the team lead in migrating from Oracle to PostgreSQL to reduce licensing and support costs.
- Automated bulk actions with Python scripts, including appointment cancellations for weather events.
- Work in a remote distributed team following Agile development practices.

Wesco | Pittsburgh, PA   **Nov 2017 – May 2020**
Software Engineer
- Backend Java development of buy.wesco.com which is a B2B eCommerce site offering over 1 million electrical, safety, and communications products generating over $250 million annually.
  - **Stack**: Java 8, Spring Framework, SAP Hybris, Oracle Endeca, Apache, Tomcat, Microsoft SQL Server
- Collaborated with other developers, QA engineers, business analysts, and product owners in Agile environment
- Identified, debugged, and resolved complex production issues in a timely manner.
- Developed REST API endpoints for orders, quotes, addresses, payment methods, and shopping lists.
- Wrote and maintained unit tests to validate logic in the code using JUnit and Mockito.
- Interfaced with external web services for search, pricing, inventory, and order fulfillment using JSON and XML
- Used Spring Integration for triggering asynchronous backend tasks such as email notifications and data imports.
- Assisted with developer onboarding of new hires.
- Developed release management dashboard to show release versions across multiple environments.
- Monitored application performance using tools such as Dynatrace and JMeter.
- Worked with the security team to maintain PCI compliance by addressing application security issues.

Advanced Software Applications (ASA) | Bridgeville, PA   Feb 2017 - Nov 2017
Software Engineer
- Developed full-stack applications integrating machine learning models for predictions.
- Maintained legacy Java applications run by small banks and credit unions using JSP, JDBC, and Swing.
- Supported a C# desktop application for generating and scoring predictive models.

Education Management Corporation (EDMC) | Pittsburgh, PA   Jul 2012 – Feb 2017
Systems Administrator III (Oct 2013 - Feb 2017)
Systems Administrator II (Jul 2012 - Oct 2013)

Ebix | Pittsburgh, PA   Mar 2007 – Jul 2012
Senior Systems Engineer (Feb 2011 - Jul 2012)
Systems Engineer (Marc 2007 - Feb 2011)

PROJECTS

Case Workload Sharing
- Shipped multiple large features to allow USCIS field offices to share cases so work can be distributed to offices with more capacity. High-impact project that reduced backlog and processing times nationwide.

Java and Spring Boot Upgrades
- Led project to upgrade six core services to Java 17 and Spring Boot 3.x to meet modernization and security guidelines.

Common Logging Library
- Developed logging library adopted by multiple teams to provide standardized HTTP request logging for API services with zero code changes, reducing troubleshooting time and improving system observability.

API Rate-Limiting
- Implemented rate limiting in existing API gateway to prevent service disruptions caused by partner system traffic spikes. Setup configurable rate limits as environment variables so they can be modified without a release.

CI/CD Migration to GitHub Actions
- Served as a key contributor in migrating Jenkins pipelines to GitHub Actions workflows.

CERTIFICATIONS

AWS Certified Solutions Architect - Professional
Issued: **December 2020** | **Active** (Validation number: J70WB8QBLMBEQK9K)

HashiCorp Certified Terraform Associate
Issued: **March 2024** | **Active** (Certificate number: 6f95323f-939e-46f8-b938-4d5dc62f5d28)

Pivotal Certified Spring Professional
Issued: **July 2020** | **Active** (Credential ID: 447232)

EDUCATION

Drexel University   2003 - 2005
Master of Science (M.S.), Information Systems   Philadelphia, PA

Penn State University   1999 - 2002
Bachelor of Science (B.S.), Computer Science   University Park, PA