

Roman Shcherbakov

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US citizen

Looking for a challenging and stimulating technical leadership position of high impact to continue professional growth. Established software architect with a wide range of expertise across SDLC working on application, test, and infrastructure ecosystems. Servant leader and enabler of team success with ongoing hands-on contribution. Former academic researcher with a Harvard PhD and a life-long passion for learning.

TECHNICAL SKILLS SUMMARY

AWS Services: VPC, IAM, EC2, ECS, Fargate, EKS, Lambda, RDS, QuickSight, S3, EFS, EBS, DynamoDB, ElastiCache, Amazon MQ, SQS, SWF, CloudFormation, CloudWatch, EventBridge, Kinesis, Elasticsearch, managed Kafka, CodeBuild, CodePipeline, ECR

Java skills: Spring Boot, Spring, SOAP and RESTful Web Services, JDBC/Spring, JPA/Hibernate, JMS/Tibco, RabbitMQ, Java 11, Guava, Apache Commons

Relational and NoSQL DBs, data stores, and platforms: MariaDB, Oracle, PostgreSQL, Teradata, Elasticsearch, HBase, Spark, Hive, MongoDB, Redis

Languages: Java, Scala, Groovy, R, Python, TypeScript, Mathematica

Tools and platforms: Docker, Kubernetes, Jenkins, git, Maven, Gradle, Jira, Confluence, GitHub

Data science: model development & fitting, big data, data mining, machine learning

POSITIONS AND PROJECTS

Bandwidth, Raleigh, NC

Software Architect in Messaging and Emergency Services verticals Sep 2018 – present

- ✓ devised a detailed program to reach single interface for Emergency Services provisioning (One Bandwidth EVS), moving implementation forward as a team lead
- ✓ working with diverse stakeholders across the company to facilitate the flow of ideas, consolidation of efforts across business domains, and adherence to best architectural practices
- ✓ performed audit, made a proposal, and implemented POCs for scaling Emergency Services platform
- ✓ led design and contributed to development of multiple products deployed to AWS, e.g., event pipeline for deliverability intelligence with Kinesis and Elasticsearch

Certifications / evening & weekend projects

2014-present

- ✓ AWS [Certified Solutions Architect – Professional](#) (till Mar 2023)
- ✓ [Professional Scrum Master I](#) (no expiration)
- ✓ lead inventor on “Techniques for Routing Messages in a Communications Network” USPTO patent
- ✓ developed and hosted SmartVideoFilter project for flexible filtered search over 200mln most viewed YouTube videos – MongoDB, Elasticsearch, Spring Boot, Angular 5, multithreading (terminated by YT)
- ✓ wrote [Base CICD project with Gradle](#) code and recorded a [tutorial video](#)
- ✓ wrote [Base Java project with Maven](#) code and recorded a [tutorial video](#)
- ✓ 31 Coursera tech courses on Algorithms, Data Mining, Big Data, Deep Learning, Cloud Computing
- ✓ Coursera management specialization “Leading People and Teams” from UMich. Business School
- ✓ [Java EE 6 Web Services Developer Certified Expert](#) (no expiration)

Teradata, Raleigh, NC

Lead Software Engineer (sustaining) in Marketing Applications division Jul 2018 – Sep 2018

- ✓ provided technical expertise, guidance, and code review feedback to Raleigh + offshore team
- ✓ ensured overall quality of maintenance releases of Real-Time Interaction Manager (RTIM)

Senior Software Engineer (new development) Apr 2016 – Jun 2018

- ✓ led design and development of GDPR Traceability compliance and Customer Profile features of RTIM
- ✓ implemented and led integration of R predictive analytics in Customer Interaction Manager
- ✓ designed and developed a stand-alone Groovy application to support customer compliance migrations
- ✓ implemented various security features for applications and APIs: OAuth2, Kerberos, SSO, SAML, XSS
- ✓ performed platform maintenance, migrations to Maven, Java 8, Spring 4

Deutsche Bank, Cary, NC

Software Development Engineer (Java) in Analytic Market Data team Oct 2014 – Apr 2016

- ✓ improved business logic of interactions with KDB+ database, which eliminated outages of a critical app and stabilized EOD processing in Equities trading
- ✓ adapted applications to new JDBC, JMS, RESTful, and SOAP interfaces, solved multiple audit points and improved system stability
- ✓ built several automated testing workflows to dramatically shorten testing cycles for 2 apps
- ✓ mentored junior team members, coordinated work on projects, maintained documentation

University of Maryland, College Park, MD

Postdoctoral Research Associate (Hubble Fellow) in Astronomy 2011-2014

- ✓ created new fluid dynamics and plasma models to describe behavior of gas near black holes
- ✓ developed scientific codes in Mathematica and C++ for ray tracing, model fitting, and visualizations
- ✓ optimized C++ code for supercomputer architecture and executed workflows on HPC cluster
- ✓ worked with and lead multiple teams, finished 6 projects, wrote papers, presented at conferences

Harvard University, Cambridge, MA

PhD candidate in Astronomy 2006-2011

- ✓ devised massively parallel C++ code ASTORAY to perform ray tracing new black holes
- ✓ developed fast and precise computation of Bessel functions using integral representations
- ✓ created collaborations and worked with several teams, wrote 7 papers, most as a lead author

PROFESSIONAL SKILLS

Problem solving

- ✓ able to disentangle and translate into code the most complex business requirements; propose maintainable, simple, and scalable solutions
- ✓ recognized by 6 grant awards over 10yrs (e.g. NASA Hubble Postdoctoral Fellowship) in Academia
- ✓ pushed frontiers of knowledge in plasma physics and fluid dynamics
- ✓ aced standard tests (e.g. GRE Physics 990/top 5%, GRE General Quantitative 800/top 2%)
- ✓ winner of many school / university Olympiads, former candidate to the International Physics Olympiad

Project and time management

- ✓ full project management and project tracking at Bandwidth as a team lead of an Agile team
- ✓ produced MVPs, worked to split into milestones, stories and arrive at T-shirt + bottom-up time estimates
- ✓ helped distribute work among team members to target either cross-training or fastest delivery goals
- ✓ managing personal projects on Kanban board on self-hosted JIRA instance

Team work & people management

- ✓ servant leader at Bandwidth leading an Agile delivery team + enabling options as an advisory architect
- ✓ coached new dev team at Teradata to arrive at best dev practices, improve code quality, reduce bug rate
- ✓ co-advised 2 junior team members in Academia, mentored 2 juniors in DB, coached 1 dev in Teradata, team lead at Bandwidth