SHIPRA BEHERA

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SKILLS

Programming Languages: Java, Kotlin, Python, C++, C#, JavaScript, HTML5.
Databases: Cassandra, Redis, MYSQL, MongoDB, Oracle, Osquery.
Frameworks/Technologies: Spring, Hibernate, Groovy, ELK, Nginx, Docker, Kubernetes, Jenkins, Tomcat, Git, Matlab, AWS, Azure, GCP, Hadoop, Spark, Intel SGX.

EXPERIENCE

Teaching Assistant – *University of Colorado Boulder* Jan 2019 - Current

- Starting Computing: Develop curriculum, implement autograder for weekly assignments in C++, and teach in weekly recitations to explain core concepts covered in the week's lectures.

Software Engineering Intern – *Dell, Austin* May 2019 - Aug 2019

- Attestation between applications on untrusted platform using Intel Software Guard Extensions.
- Developed Dell Client Framework plugins to register and manage these applications.

Graduate Course Assistant – *University of Colorado Boulder* Aug 2018 - Dec 2018

- Datacenter Scale Computing: Designed the coursework and projects with AWS, Hadoop, Spark and Cassandra.

Senior Software Engineer – *Rakuten Inc., Tokyo* Sep 2016 - Aug 2018

- Deployed a hybrid, cloud-native API gateway distributed across multiple data-centers on Azure, GCP and on-premise network, running with a global Cassandra cluster which supports millions of requests a day.
- Implemented a JWT based authorization plugin to unify clients used for access control across different identity providers in Rakuten.
- Configured High Availability solution to support rate-limiting and proxy-caching of API requests and responses using Redis Sentinel. CI/CD pipeline automation and deployment using Jenkins, Docker and Kubernetes. Implemented consolidated dashboards for troubleshooting, logging, alerts, error tracking and application performance monitoring for production API gateway system using Datadog, New Relic and Sentry.
- Designed a notification tool using Elasticsearch Watcher, Spring and JavaScript to receive PagerDuty and email alerts in case of system errors. Also managed and mentored new grad engineers in this project.
- Developed REST APIs to automate the manual maintenance operations. Used Java Spring, MySQL and JavaScript.

Software Engineer – *Hikari Tsushin Inc., Tokyo* Sep 2014 - Jul 2016

- Developed a telemarketing system to manage sales of various products and streamline customer sales history. Using Java Spring framework, Hibernate, Oracle DB and JavaScript.
- Developed a Company Asset Management System using Java Spring MVC technology, Hibernate, PostgreSQL and JavaScript.

EDUCATION

Masters in Computer Science May 2020

University of Colorado Boulder

Relevant Coursework: Machine Learning, Network Systems, Graduate Algorithms, Object Oriented Analysis and Design

Bachelor of Technology in Computer Science and Engineering May 2014

Indraprastha Institute of Information Technology, Delhi, India

Relevant Coursework: Data Structures, Analysis and Design of Algorithms, Operating Systems, Database Systems

PROJECTS

SenseNet – *Graduate Research Project* Jan 2019 – May 2019

- Researching how to provide QoS to network users, based on edge-based video processing from camera sensors using computer vision.

Spoofing in Iris Recognition - *Undergraduate Research Project* Aug 2013 - May 2014

- Explored the vulnerabilities of iris identification technologies using fake printed irises on paper. Proposed an SVM based approach of accuracy 83.17 % to mitigate this problem. Used C#, Matlab and VeriEye tool.

PUBLICATIONS

- **"On Iris Spoofing using Print Attack"**, P. Gupta, S. Behera, M. Vatsa, R. Singh, In Proceedings of the 22nd International Conference on Pattern Recognition, 2014, Stockholm.

AWARDS AND ACHIEVEMENTS

- First Runner up in Rakuten Tech Awards 2017, for being the lead developer of a microservice which serves the multi-tenant needs of Rakuten's organizations, clients and API providers.
- Part of 3-member winning team of Rakuten Hackathon, Tokyo, 2017.