SUBHADEEP BHATTACHARYYA

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Personal Portfolio: https://imjuoy.github.io/

EDUCATION

Carnegie Mellon University   **Pittsburgh, PA, USA**
- Master of Information System Management;   May 2018

  Major Courses: ▪ Cloud Computing ▪ Internet Of Things ▪ Distributed Systems ▪ Object Oriented Java ▪ NoSQL DB ▪ Agile Methods

Kalinga Institute of Industrial Technology   **Odisha, India**
- Bachelor of Technology in Computer Science and Engineering;   May 2012

SKILLS SUMMARY

- **Languages:** Java, JavaScript, Python, Bash
- **Cloud Platforms:** AWS, Azure, Heroku
- **Frameworks:** J2EE, JUnit, React, Node
- **Big Data Tools:** Kafka, Spark, Hadoop, Mosquitto, ELK
- **Databases:** Oracle, MySQL, MongoDB, DynamoDB, Cassandra, S3
- **Tools:** Kubernetes, Docker, Git, Jenkins, Helm, Prometheus, Grafana

CERTIFICATIONS

- OCA **(Oracle, 2015)** ▪ ITIL Foundation **(APMG, 2015)** ▪ Professional Scrum Master I **(Scrum.org, 2017)**

WORK EXPERIENCE

Senior Software Engineer, Proofpoint Inc.   **Sunnyvale, Aug 2020 - Present**
- Worked on the redesign of a monolithic Cloud Quarantine Service to divide it into microservices deployed over AWS.
- Designed, developed a RESTful microservice for New Gen Cloud Quarantine to manage folders, using DynamoDB as backend.
- Worked on the migration of various types of data from existing quarantine service to the new generation service.
- Debugged and fixed a customer issue in the existing Quarantine Service, which helped stop email message corruption by 100%.
- Worked on cost attribution of S3 Usage by different clients of a data storage application, using Micrometer, Prometheus and Grafana.
- Worked on building out an AWS ALB for different AWS theatres to enable proper load balancing for microservices under it.
- Working on enabling geo location based routing using AWS Route 53 to allow clients to talk to one endpoint irrespective of location.

Software Engineer III, Proofpoint Inc.   **Sunnyvale, Aug 2019 – Jul 2020**
- Implemented highly desired features of exact search, partial exact search on email subjects using Elasticsearch SDK.
- Single-handedly worked on the code enhancements, monitoring (Logstash, Nagios) of a Cloud Quarantine service which ingests more than 2GB emails/minute and serves more than 100 million search requests/day.
- Worked on the maintenance of existing Kafka, Elasticsearch, Cassandra infrastructure provisioned for a legacy Email Quarantine service to ensure better performance with increasing load which helped reduce hardware/software issues.

Software Engineer II, Proofpoint Inc.   **Sunnyvale, Aug 2018 – Jul 2019**
- Designed, implemented an API key management application to help authenticate end-user access to a streaming application serving more than 7 million records/seconds.
- Built a UI for generation of API keys by support teams and product managers, using React and Node JS.
- Designed, implemented , deployed a RESTful microservice for supplying Customer Vertical information to End User facing applications.
- Led performance improvements for Java and Golang applications using Prometheus and Grafana.
- Implemented containerized JMX Prometheus exporters for exposing Java application metrics to Prometheus.

Senior Software Engineer, Tata Consultancy Services   **Mumbai, India & Riyadh, Saudi Arabia, Sep 2013 – Apr 2017**
- Gained first-hand experience of implementation, support and maintenance of large-scale IT applications through 2 years of client-site experience.
- Worked on the bifurcation of one of the largest enterprise Siebel CRM implementations of TCS catering to 17 million B2B and B2C customers, for the largest telecom client of TCS. Improved application throughput by 15% and increased total uptime as a by-product of the change.
- Led the seamless migration of 3 million production records between Oracle databases using PL/SQL procedures and server-side shell scripts.
- Worked on production data-fixes using multi-threaded Siebel EIM tools and Oracle procedures to reduce deployment time by 10%.

Software Engineer, Tata Consultancy Services *(Innovation Labs – R & D)*   **Mumbai, India, Sep 2012 –Sep 2013**
- Single-handedly developed the procurement module of a cross-platform application - **mKRISHI,** aimed at facilitating agriculture in rural parts of India.
- Used Struts 2.0 as the front-end framework, Spring 3.0 for Inversion of Control and dependency injection, Ibatis for ORM with SQL.

KEY ACADEMIC PROJECTS

High Performance Twitter Analytics Web-Service *(AWS, Java, Hadoop, Map Reduce, SQL, HBase, Multi-threading)*   **CMU**
- Developed multiple high-performance multi-threaded RESTful web-service's to handle concurrent read/write queries on 1 TB raw JSON Twitter source data. Established the ETL pipeline for data filtering using Map-Reduce to load the data in SQL Server and HBase. Used query optimization techniques such as indexing, thread-pooling, sharding, hashing to serve more than 10K RPS for each web service.

Real-time Taxi Driver Matching Service *(AWS EMR, Apache Kafka, Apache Samza)*   **CMU**
- Published multiple streams of GPS data through Kafka producers. Used Apache Samza consumers to process the data to enable a driver matching service like Uber/Lyft. Deployed the Kafka and Samza application on the YARN provisioned on AWS EMR.

LEADERSHIP, AWARDS AND INTERESTS

- Mentored the **first women's IT team in Saudi Arabia** on the deployment of Siebel objects in production and SQL basics, TCS.   **2017**
- Best performer award for all-round work during OSS application bifurcation cutover and delivery, TCS.   **2017**
- Critical Impact Award, Proofpoint Inc.   **2019, 2020, 2021**
- Writer at **Quora(Subhadeep-Bhattacharyya-1), Stack Overflow(radioactive)**. Sports Enthusiast with keen interests in Cricket, Tennis.