Gurnaaz Randhawa

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Education

- **University of California, San Diego** — San Diego, CA
  Bachelor of Science in Computer Science — *Sep. 2013 – June 2017*

Technical Skills

- **Programming Languages/Frameworks**: 6 years of Java; other languages/frameworks known: Python, Android, C++, HTML, CSS, JavaScript, Spring, Mockito
- **Software Tools/Technologies**: AWS, Git, Linux, Kafka, Kafka Connect, Docker, Kubernetes, TeamCity
  · Familiar with: Apache Flink, DialogFlow, Firebase, Zookeeper, Gradle, Maven, Avro, Elasticsearch, Kibana, Terraform

Experience

- **Guidewire Software** — San Mateo, CA
  Software Engineer — *May 2018 - Present*
  - **Infrastructure Monitoring using AWS Lambda**: Developed multiple AWS Lambda functions in Python to monitor both our development and production environment Kafka Connect clusters, Elastic MapReduce clusters, and other vital infrastructure pieces deployed in AWS and alert appropriate Slack channels of any unexpected behaviors
  - **Kafka Serialization/Deserialization**: Expanded our current Kafka Serializer and Deserializer to properly evolve, store, and utilize Avro schemas in a separate, external data catalog instead of storing both the schema and data in our Kafka messages; Kafka messages now consist solely of data, increasing downstream applications runtimes by over 100%
  - **RESTful Web Services**: Created essential REST APIs using Java, Swagger Codegen, Spring, and Gradle after working with clients to determine certain API requirements and validations; the REST APIs are being used by 4 different internal teams to access and modify our data catalog
  - **Microservices Development**: Implemented multiple key features for our cloud-native microservices in Java such as determining when a Kafka Connect connector has finished its initial database bulkload, polling for new schemas to add to our catalog store from specific Kafka topics, and adding fixes for any race conditions or performance issues resulting in unexpected behaviors
  - **CI/CD Pipeline for Microservices**: Led the deployment of our microservices using AWS ECR (Docker), EKS (Kubernetes), ECS, Cloudformation, Terraform, & Teamcity while also integrating Reckon's Gradle image tagging library to our CI/CD pipeline to easily manage, tag, and release dockerized images of our services; other teams have adapted core aspects of this strategy and applied it to their own CI/CD pipeline
- **Qolsys** — San Jose, CA
  Software Engineer — *July 2017 - May 2018*
  - **Android Development**: Redesigned current real-time data transfer method within our Android application to a secure, fault tolerant solution by introducing and implementing a HTTPS-based solution which led to a gain of 30% in transfer speed between connected devices
  - **ETL Using Apache Flink**: Processed hundreds of thousands of data points using Apache Kafka and Flink, converting messages into a programmer-friendly format, filtering attention-requiring data, and robustly storing data into organized Cassandra tables for easy, user-friendly access
  - **Smart Home Chatbot**: Created a digital assistant invoked through Google Assistant using Actions on Google, Dialogflow, Firebase, and Python to improve the user experience for customers by allowing them to less effortlessly change or get the status of their smart home devices
- **Verizon Labs** — San Jose, CA
  Software Engineering Intern — *Summer 2016*
  - **Full-Stack Development**: Designed a web app using HTML, CSS, JavaScript, and jQuery, while integrating the React.js framework, allowing users to view statistics of their IPTV set-top box
  - **Dynamic Data Visualization**: Incorporated relevant data into JavaScript charting libraries such as D3 and Rickshaw Charts while supporting real-time and dynamic functionality