# Karthik Siddaramanna

Colorado, USA Mobile: +1 720 421 4650

## EDUCATION

#### University of Colorado Boulder

Master of Science in Computer Science; CGPA: 4/4

Boulder, USA Aug 2019 - May 2021

Email: karthik.siddaramanna@colorado.edu

### National Institute of Technology Karnataka

Bachelor of Technology in Computer Science and Engineering; CGPA: 7.98/10

Surathkal, India July 2013 - May 2017

## TECHNICAL SKILLS

Java, Python, Javascript, C, C++, SpringBoot, Flask, Node.js, Kafka, RabbitMQ, Redis, Hadoop, Spark, Spark Structured Streaming, REST, GRPC, AWS, GCP, Maven, Gradle, Git, SQL and NoSQL(Cassandra, MongoDB, Elastic), JUnit, Mockito, Docker, Kubernetes, Tomcat, nginx, Splunk, Wavefront, Grafana, JIRA, Confluence.

#### EXPERIENCE

# University of Colorado Boulder

Boulder, CO

Teaching Assistant

Aug 2020 - Present

- o CSCI 3308: Software Development Methods and Tools:
  - · Handling recitations for undergrad software development (Docker, Frontend, Javascript, SQL, Node.js, EJS, Heroku). Course.

VMware Inc., Intern - Performance Palo Alto, CA

May 2020 - Aug 2020

- VMC Platform Performance:
  - · Built a data pipeline based on kafka as an out of the box solution to train and evaluate ML models at scale.
  - · Built a POC to demonstrate time series data aggregation using kafka streams.

Intuit Inc.

Software Engineer 1

Bengaluru, India

Aug 2017 - July 2019

- Quickbooks Online Platform Development (QBO-PD):
  - · Contributed to feature development, bug fixes and was on call for Production incidents in the Signup Team of QBO.
  - · As part of the Decomposition team tasked with moving Signup service out of monolith, was involved in design and implementation of an asynchronous system using Kafka which reduced TP99 of signups time from 20 to 12 seconds.
  - · Proposed the idea and deprecated rarely used databases which helped free up 1.5% of DB connections to support tax peak.
- Intelligent Retry System (IRS):
  - · Designed and developed a persistent and intelligent retry micro-service (Spring Boot application with Cassandra DB, deployed on AWS) to solve for QBO signup failures caused by intermittent network failures along down-stream services.
  - · Individually built application infrastructure, handled deployment, specified release cycles and incident management guidelines, automated integration and performance testing (Jenkins).
  - · Secured the service by solving for OWASP Top 10 and integrating it with Contrast and NexusIQ (static analysis).
  - · Added Splunk support, App Dynamics and created necessary dashboards and alerts for monitoring.
  - · IRS brought down the monthly FCI numbers by 70% and had a recovery rate of more than half during incidents.

# Intuit Inc.

Bengaluru, India

Software Developer Intern

June 2016 - July 2016

- o Quickbooks Online Billing Team:
  - · Using ScheduledExecutorService and Hystrix, built an in-memory retry system as a resiliency solution for external SOAP calls.

## PROJECTS

- Handover of Control in Autonomous Vehicles:: Building a web based traffic simulator to study control handover in autonomous vehicles. Deployed on Amazon's MTurk. Working as part of CAIRO Lab, under Prof. Bradley Hayes.
- Optimization in smooth games: Studied the intricacies involved in multi objective optimization. Report.
- GithubOrg visualizer: Pipeline based on Elassandra to pull, analyze and visualize data at scale from Github organizations.Link
- Non Normal Recurrent Neural Networks (nnRNN): Implemented "adding problem" from original LSTM paper for nnRNN and compared its performance. Performed ablation studies by varying hyperparameters, optimizers and initializers. Report
- Payments Integration using NFC: Integrated a service in Quickbooks Desktop Application to allow communication with a NFC ring that auto-completes details on the payments page. This project won us second place in a hackathon at Intuit.

#### Graduate Coursework

Algorithmic Game Theory, Data Center Scale Computing, Big Data Architecture, Machine Learning, Deep Learning, Design and Analysis of Algorithms;