Kanth Kumar DAYANAND

PHONE: +1 585-993-4152 | EMAIL: kanthkumar46@gmail.com | WEBSITE: kanthkumar46.github.io

EDUCATION

MAY 2017 — Master of Science in COMPUTER SCIENCE   GPA: 3.70/4.00
Rochester Institute of Technology, Rochester, New York
COURSE WORK: Foundation of Algorithms, Distributed Systems, Advanced Algorithms, Parallel Computing, Web Services & SOA, Foundation of Computer Networks

JUNE 2012 — Bachelor of Engineering in INFORMATION SCIENCE   GPA: 3.42/4.00
University Visvesvaraya College of Engineering, Bangalore, India

TECHNICAL AND PROGRAMMING SKILLS

Programming Languages:	Java, GoLang, Python, JavaScript, C and C++
Frameworks & Tools:	Spring, RxJava, Temporal, Akka, Map-Reduce, Mockito, Git
Web:	gRPC, RESTful, SOAP, NodeJS, AngularJS, BootStrap, HTML5 and CSS
Databases:	Memcached, MongoDB, SQL, MySQL, JDBC

WORK EXPERIENCE

FEB 2022 - PRESENT

Software Engineer at STRIPE, San Francisco, California
Distributed Caching & Edge

DRI for designing and building Cache Warmer service, enabling seamless zero-downtime replacement and resizing of ephemeral data plane nodes. Go, gRPC, Temporal

Primary contributor for the design and development of client SDKs and a gRPC service for accessing cache clusters. Java, Go, gRPC, Memcached

Successfully onboarded 15+ internal customers to the new caching platform, resulting in a ›50% reduction in their overall p99 latency.

Currently designing and implementing a quarantine sharding technique at the edge to mitigate the impact of noisy neighbor issues on upstream services. Go, gRPC

JUNE 2019 - FEB 2022

Senior Software Engineer at APPLE, Cupertino, California
Siri Experience (Music and Photos domains)

Worked on re-writing the music domain on a new search architecture to improve the Siri music search quality and performance. GoLang

Developed a new A/B testing framework for Siri server experiments, enabling faster iteration cycles for new feature releases across multiple Siri domains.

Responsible for delivering and improving multi-user music search experience, implementing web images search hand-off experience on HomePod.

JULY 2017 - MAY 2019

Senior Software Engineer at INTUIT, San Diego, California
TurboTax (Core Tax Services)

Implemented an encryption feature to generate a unique UUID for supporting the de-duplication of tax documents imported into TurboTax. Java

Designed new REST APIs to support creating, updating, and retrieving estimated tax payments and extension artifacts and an API to support e-filing both federal and state extensions. Java, Spring

Worked on creating a new version of java library that supports create, update and list operations on tax, user experience, and commerce artifacts for TurboTax online. Java, Spring

Implemented a new rest endpoint for enabling TurboTax customers to successfully delegate their tax returns to tax experts. Java, Spring

JUNE 2016 - DEC 2016

Software Engineer Co-op at INTUIT, San Diego, California
TurboTax

Developed a tool for cross-checking the Jira issues with GitHub commits to automate the pre-release activities of our backend services. Java, Spring, Bootstrap

Worked on implementing the Circuit-Breakers for Java services to enable resilience using Hystrix.

Implemented asynchronous caching to store financial document providers information and reduced our service response time by ~2seconds

Worked on adding the new features to Java Services for importing customer tax documents to TurboTax. Java, Spring-Boot.

SEPT 2015 - MAY 2016	**Graduate Research Assistant, Rochester Institute of Technology**
	Designed and developed a website (PencilPuzzle) for listing the puzzles and lab assignments related to introductory Computer Science topics. AngularJS, Bootstrap
JUN 2015 - AUG 2015	**Software Engineering Intern at CISCO, San Jose, California**
	VxLAN - Virtual Extensible LAN
	Developed a CLI command for comparing the run-time configs with the configs stored in *In-memory* database and Implemented a consistency check feature for *VxLAN* component deployed in dual homed environment - *vPC*

PROJECT WORK

Code clone detection: using Program Dependence graphs
Designed and implemented a tool to represent the *Java* programs as graphs and used network alignment algorithm to identify code clones. Java8, Antlr4.

Dataflow Network
Developed an infrastructure using Akka concurrency framework allowing the users to write sequential programs that forms the computational "vertices" of a dataflow network and communicate via channel specified as "edge". Java, Akka

HyperLogLog - Near optimal cardinality estimation algorithm
Implemented HyperLogLog algorithm for approximating the cardinality of large data sets using Map-Reduce paradigm.

Distributed File System
Implemented a *Hadoop* like Distributed File System. Features include basic File System commands (*mkdir, ls, put, get*), File Namespace, Block Replication, Fault Tolerance using *HeartBeat* mechanism. Java

Ricart and Agravala - Mutual Exclusion Algorithm for Distributed Systems
Implemented a mutual exclusion algorithm to control the process entering into Critical section on a distributed system.

SCHOLARSHIPS AND AWARDS

RIT 2014	30% wavier in tuition fees as merit scholarship.
UNISYS 2013	*Innovative Thinker* award for designing and developing the iOS app