

# Sachin Srinivas

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## EDUCATION

### Master of Science in Computer Science

August 2022 – Present

- University of Illinois at Chicago, IL, USA (GPA - **3.94**)
- Coursework - Computer Algorithms, Machine learning, Data Mining and Text Mining, Cloud Computing

### Bachelor of Technology in Computer Science and Engineering

Aug 2016 – Jun 2020

- PES University, Bangalore, KA, India (GPA - **3.8**)

## TECHNICAL SKILLS

**Programming Languages:** C++, Java, Python, JavaScript, C#, Golang, C.

**Web Technologies and Frameworks:** Spring Boot, ExpressJS, NodeJS, ReactJS, Flask, AngularJS, Django.

**Cloud Platforms:** AWS, GCP, Azure, vSphere, Kubernetes, Hyper-V.

**Operating Systems:** Windows, CentOS, Solaris, RedHat Linux, Mac and Ubuntu.

**Databases:** MySQL, MSSQL, MongoDB, Redis

**Tools:** GIT, CVS, CI/CD, Docker, REST API's, ActiveMQ, PyCharm, Visual Studio, GDB

## WORK EXPERIENCE

### Graduate Research Assistant | *ACER, University of Illinois , IL, USA*

Mar 2023 – Present

- Designed queuing structures to optimize data transfers and facilitate efficient arithmetic operations in high-performance computing.
- Assisted 500+ researchers in optimizing HPC cluster use with suitable parallel and distributed algorithms via MPI, boosting computational efficiency.
- Strategically optimized Amazon S3 buckets for peak performance and efficiency, implementing advanced configuration techniques and data organization strategies to boost retrieval speeds, reduce storage costs, and enhance operational efficiency.
- Designed and Developed a client-facing SERN full-stack app for monitoring and analyzing usage and performance metrics.

### Software Development Intern | *Commvault, NJ, USA*

May 2023 – Aug 2023

- Developed and deployed custom Plug and Play images with integrated Commvault packages across AWS, GCP, and Azure using Java and the Spring Boot Framework, optimizing the deployment process.
- Enhanced customer experience by ensuring seamless access to these images through the Commvault Marketplace, streamlining the deployment process and improving service accessibility.

### Software Development Engineer | *Commvault, Bangalore, India*

Jan 2021 – Jun 2022

- Significantly improved performance of Remote cache sync by **400%** through multi-threading and caching techniques
- Enhanced **scalability and fault tolerance** by implementing client-side downloads, reducing server load by **40%**.
- Improved Azure auto-scaling by optimizing agent calculation methods and implementing efficient idle agent cleanup without waiting on job to complete, enhancing scalability and resource utilization.
- Led critical projects to boost customer satisfaction and promptly address issues.

### Associate Software Development Engineer | *Commvault, Bangalore, India*

Jul 2020 – Dec 2020

- Enabled stable update releases through implementation of long-term support for download software.
- Revamped the file transfer process, leading to quicker updates, more efficient resource utilization, minimized client downtime, and enhanced system scalability.
- Improved code quality with advanced C++ memory management and object-oriented design.
- Coordinated with customers and cross-functional teams to enhance the functionality and user experience of the product.

### Software Engineering Intern | *Commvault, Bangalore, India*

Jan 2020 – Jun 2020

- Spearheaded the creation of essential silent installation modules, now widely adopted across teams, greatly simplifying and standardizing software deployment.
- Automated and managed remote software updates, ensuring consistent configurations and efficient deployment.
- Contributed to DotNet Installer development, implementing versioning strategies for seamless software installations.

## ACADEMIC PROJECTS

### Chicago Bikers Real-Time Navigation System

Sep 2023 – Dec 2023

- Developed a mobile application using the React Native framework and utilized React and Express JavaScript for the backend.
- Successfully integrated scale-up and scale-down functionalities, ensuring a seamless user experience.
- **Technologies** - React Native, ReactJS, ExpressJS, NodeJS, MongoDB, REST API

### Real-Time Distributed Component Based Framework for Twitter Sentiment Analysis

Jan 2023 – Apr 2023

- Built a real-time Twitter sentiment analysis app using Twitter API, Apache Kafka for data streaming, NLP techniques, and CNN for sentiment classification. Visualized results with Heat Maps and stored data in MongoDB.
- **Technologies** - Microservices, Twitter API, Apache Kafka, Tensor Flow, MongoDB, Docker-Container, Heat Maps.

### Cloud Orchestrator for a Web Application Hosted on Amazon EC2 Instance

Jan 2023 – April 2023

- Designed and developed a Cloud Orchestrator for Docker-based REST API deployment, incorporating load balancing, fault tolerance, and auto-scaling.
- Leveraged the MERN stack to create a JavaScript-based Orchestrator, enhancing container management.
- **Technologies** - AWS EC2 instance, Docker-Container, ReactJS, NodeJS, MongoDB, Apache Kafka, Zookeeper

### Divvy Van Assistant

Jan 2018 – May 2018

- Developed an application to assist Divvy Van drivers with bike deliveries by providing optimal routes of travel, while monitoring existing inventory in real time.
- Implemented a No-SQL MongoDB that updates and stores data on the availability of bikes in a specific docking station.
- **Technologies** - Java, JavaFX, Swing, MongoDB