

NIKHITH BIRRU

San Jose, CA

+1(945) 267-1298 • nikhithbirru@gmail.com • [LinkedIn](#)

OBJECTIVE

Software engineer with over 4 years of experience in developing and implementing solutions using a diverse range of technologies, including **C/C++**, **C#**, **Python**, **Transact-SQL**, **Java**, and **JavaScript**. Proficient with the **SQL Server** and have orchestrated with cloud technologies such as **Microsoft Azure** and **Amazon Web Services**. Proficient in team collaboration across disciplines, effectively conveying technical ideas, and product development endeavors to all the stakeholders. Possesses a deep understanding of algorithms, data structures, and system design principles.

EDUCATION

University of North Texas

Denton, TX

Master of Data Science

Jan 2023 - May 2024

Coursework: Data Modeling, Data Science Principles, Analytics Fundamentals,
Data Analysis, Data Visualization, Applied Machine learning.

GPA: 3.9/4.0

Jawaharlal Nehru Technological University

Hyderabad, India

Bachelor of Computer Science

Aug 2014 - July 2018

Coursework: C/CPP, Operating Systems, Computer Networks, DBMS, Java, Android,
Data Structures and Algorithms, Unix, Web Technologies, Cloud Computing.

GPA: 3.5/4.0

SKILLS

Languages

C/C++, Python, SQL, T-SQL, C#, Java, JavaScript, HTML, CSS.

Tools & Libraries

REST APIs, .Net Framework, SQL Server, Tableau, RapidMiner, SPSS,
PDFKit, wkhtmltopdf, Highcharts, docx4j, pptx4j, Beautiful Soup.

Cloud Technologies

Microsoft Azure, Azure SQL Instance, Azure Blob, Azure Functions,
Amazon Web Services, Amazon EC2, Amazon VPC, Amazon EBS.

Development IDE

Microsoft SSMS, Visual Studio, PyCharm, Jupyter, IntelliJ, Android Studio.

EXPERIENCE

Commvault Systems

Hyderabad, India

Senior Software Engineer

Nov 2020 - Dec 2022

- **Usage History Database:** Designed and executed a new database solution with **T-SQL** and SQL Server Management Studio (SSMS) to alleviate 50% strain on primary Metrics database caused by high volume tables, ensuring optimal performance and scalability.
- **Check Readiness :** Programmed to a **C++** module assessing component **readiness** within the CommCell environment by confirming network connections, resource availability, and configurations across Windows and **Unix** platforms, enlisting **T-SQL**, **REST APIs**, and **MongoDB**.
- Took charge of a Proof of Concept (**POC**) aiming at migrating on-prem Metrics database to Microsoft Azure Managed SQL Instance. Deployed **Azure Serverless functions** to gather and analyze metrics data from CommCells, subsequently transferring it to **Azure Blob storage**.
- Facilitated on data backup and restoration tasks for **Amazon EC2 instances**, **Amazon VPCs**, and **EBS volumes**. Constructed core backup modules layering **C++**, **C#**, **.Net Framework**, **T-SQL**, and **REST APIs** to ensure backup resilience, disaster recovery, and data integrity in cloud environments.

Software Engineer

Dec 2019 - Nov 2020

- **Document Generator Framework:** Built a flexible document generator in **Java**, leveraging open-source Java libraries **docx4j** and **pptx4j** to dynamically tailor reports into Docx and PPTx formats.
- **Commvault Service Pack Newsletter:** Developed a **Python** script, utilizing **PDFKit**, **wkhtmltopdf**, **ILovePDF**, **REST API**, and file handling to convert raw HTML files into well-formatted PDF documents and schedule their distribution to target users.
- Spearheaded adaptation of the Metrics database to the **SaaS** model, integrating CommVault Metallic into the **Multi-tenant** Service Providers environment by modifying database structures and logic in **T-SQL**.

Associate Software Engineer

Jul 2018 - Nov 2019

- **Metrics Reporting:** Oversaw a geographically distributed database, **Metrics Reporting Server**, enabling centralized performance monitoring across multiple CommCell environments, employing **C++**, **Python**, and **T-SQL** to collect, parse, and visualize metrics data.
- **Health Report:** Devised a comprehensive **report** providing an overview of the CommCell environment's health via interactive tiles. Utilized **T-SQL**, **HTML**, **CSS**, **JavaScript**, and **Java** to tailor crucial tools for monitoring backup operations and disaster recovery settings.

Software Intern

Jan 2018 - Jun 2018

- **Simpana Reports:** Collaborated on generating reports utilizing technologies such as **C++**, **T-SQL**, and **Java** to accelerate job analysis for customers, with outputs in various formats HTML, PDF, and CSV, and options for scheduling, emailing, or storing reports for ease of access.
- **Custom Reports:** Created and maintained numerous **custom reports**, integrating data from various sources harnessing T-SQL queries, T-SQL stored procedures, and REST APIs, and leveraged the **Highcharts library** to provide visual insights.

PROJECTS

- Functioned in a capstone project focused on developing an automated TOEFL english speaking test grading system using a neural network framework. Relying on **BD-LSTM scoring model** enhanced with **attention weights** optimization to improve accuracy.
- Guided a team to accomplish a crucial mobile application bridging intellectually disabled patients with doctors, **NEIPID**. Employed **Node.js** for backend server and **Android** for user interface development.
- Constructed an Advanced File Management System in C, **Blob-Store**.
- Devised a real-time communication application in C by multi-threading and binary file management, **Chat Room**.
- Fulfilled a compiler for custom assembly-like language, **8086 Interpreter**.
- Crafted a Community-based advertising Android application, **Sale On Campus**.
- Solved other mini-games and day-to-day useful scripts using **Python** and **C** (i.e., K1 organizer, Nikbuzz, cow and bull, Tetris, tic-tac-toe).

LEADERSHIP AND ACHIEVEMENTS

- **Mentored** interns to take ownership of subsystems and directed in full-time conversions.
- At **MissionRnD**, ranked among top 100 technical students statewide, earning a spot in a prestigious two month course at **IIT Hyderabad** organized by industry experts.
- As a **President** of the CVR Computer Society of India student branch, led a community of over 1000 students, orchestrating diverse activities such as industry talks, technical contests, workshops, and boot camps. Additionally, founded the CSI Student Branch CVR **YouTube** channel, fostering knowledge-sharing through more than 65 educational videos over a semester.