

# NIKHITH BIRRU

Tinton Falls, NJ

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## OBJECTIVE

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Senior software engineer with 5+ years of experience in developing and implementing solutions using a diverse range of technologies, including **C/C++**, **C#**, **Python**, **Transact-SQL**, **Java**, **ReactJS**, and **JavaScript**. Proficient with **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 the stakeholders.

## EDUCATION

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<b>Master of Data Science</b>	Jan 2023 - May 2024
<b>University of North Texas, Denton, TX</b>	GPA: 3.9/4.0

<b>Bachelor of Computer Science</b>	Aug 2014 - July 2018
<b>Jawaharlal Nehru Technological University, Hyderabad, India</b>	GPA: 3.5/4.0

## SKILLS

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<b>Languages</b>	C/C++, Python, SQL, C#, Java, Rust, JavaScript, HTML, CSS.
<b>Tools &amp; Libraries</b>	ReactJS, REST APIs, .Net Framework, Tableau, RapidMiner, SPSS.
<b>Cloud Technologies</b>	Microsoft Azure, Amazon Web Services.

## EXPERIENCE

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<b>Commvault Systems</b>	<i>Tinton Falls, NJ</i>
<b>Senior Software Engineer</b>	Jul 2024 - Present

- **Live Browse:** Contributed to the [Live Browse](#) and Recovery module for guest files and folders in VMs, implemented in **C++** and emphasized user interface with **ReactJS** ensuring efficient data browse and restore operations across Windows and UNIX-based environments.
- **File Indexing:** Fixed a few roadblocks in the [File Indexing](#) module to support efficient indexing of guest files and folders across multiple hypervisors.
- Designed and developed a utility tool named CVDiskManagerTool, leveraging C++ to enable efficient mounting and unmounting of devices from Windows and Linux guest machines.

<b>Senior Software Engineer</b>	Nov 2020 - Dec 2022
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- **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

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- 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

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- **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 **IIIT 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.