

# Kunal Chand

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2+ years of developer experience; MS in Computer Science; open to Software Engineer roles

## EXPERIENCE

**Research Assistant** | *Python, CUDA, MPI, Slurm, Shell*

*University at Buffalo (SUNY)*

**Feb 2024 – Present**

*Buffalo, New York, USA*

- Analyzing molecular stability by executing simulations; optimizing performance; developing parallel algorithms.

**Teaching Assistant** | *Go, Linux, Communication, Leadership, Teamwork*

*University at Buffalo (SUNY)*

**Aug 2023 – Dec 2023**

*Buffalo, New York, USA*

- Assisted **70+ students** in learning Distributed Systems concepts, and **troubleshooting bugs**.
- Supervised grading & invigilation activities; generated plagiarism reports; resolved doubts.

**Associate Software Engineer** | *Java, Spring, Maven, SQL, Git, Jira*

*NRI (Nomura Research Institute) FinTech*

**Aug 2020 – Aug 2022**

*Kolkata, West Bengal, India*

- Developed fintech portal using **Java Spring**, providing a UI for financial transactions, serving **10K+** active users.
- Identified performance bottlenecks by employing monitoring tools, profiling techniques, and load testing.
- Crafted SQL queries utilizing **DDL & DML** scripts; efficiently managed a database with **50M+** records.
- Enhanced software quality by using techniques such as **code refactoring** and Test Driven Development (**TDD**).
- Monitored code quality and adherence to project requirements by **conducting 40+ code reviews**.
- Validated software robustness by executing **6,000** unit test cases and **3,000** integration test cases.

## EDUCATION

**Master of Science in Computer Science and Engineering**

*University at Buffalo, The State University of New York*

**Aug 2022 – Dec 2023**

*Buffalo, New York, USA*

- Relevant Coursework: Analysis of Algorithm; Data Intensive Computing; Machine Learning; Computer Architecture.

**Bachelor of Technology in Computer Science and Engineering**

*Kalinga Institute of Industrial Technology (KIIT University)*

**Jul 2016 – May 2020**

*Bhubaneswar, Odisha, India*

## PROJECTS

**NRIFT Selenium** | *Java, Selenium, Eclipse*

[GitHub Link](#)

- Automated browser using Java Selenium to **streamline attendance management** within an in-house application.
- Incorporated a **one-click** feature to automate **end-to-end workflow**, cutting manual efforts and **saving 75% time**.

**Text Chat App** | *C/C++, Socket Programming, TCP/IP, Command-Line-Interface (CLI)*

[GitHub Link](#)

- Built a centralized client-server model for a text chat app using TCP sockets & C++ for multi-client communication.
- Deployed and tested application on dedicated hosts, ensuring **cross-platform compatibility** and robustness.
- Provided dual functionality, acting as a UNIX shell accepting commands, simultaneously handling network operations.

**Parallel Systems** | *C/C++, MPI, OpenMP, Slurm, Shell*

[GitHub Link](#) | [Demo Link](#)

- Devised an algorithm having distributed and shared memory achieving a **5x speedup** for subset sum computations.
- Introduced a **load balancing** feature to dynamically delegate workload between MPI processes & OpenMP threads.

## SKILLS

**Languages:** Java, Python, C, C++, HTML, CSS, SQL, JavaScript, PHP, Go.

**Tools & Frameworks:** Git, Jira, Maven, Linux, Spring Boot, Selenium, AWS Cloud, Docker, REST API, Postman, Shell, Bash.

**Functional Skills:** Object Oriented Programming, Pair Programming, Test Driven Development, SDLC, Agile Model.

**Miscellaneous:** Data Structures, RDBMS, JDBC, TCP/IP, JSP Servlets, J2EE, Design Patterns, Microservices, Kubernetes.

## ACHIEVEMENTS

**Publications:** Articulated 2+ editorials/blogs/articles ([Brick Wall](#), [Minimum Area Rectangle](#), and [Recursion Guide](#)).

**Certifications:** [Getting Started with Python Object Oriented Programming: A Hands-On Approach](#)