# **Kunal Chand**

716-292-5504 | kchand@buffalo.edu | LinkedIn | GitHub | Portfolio

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

#### EXPERIENCE

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

Feb 2024 – Present

University at Buffalo (SUNY)

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, Oracle DB, JUnit, Git, Jira, Maven 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 reliability by executing hundred's of unit and integration test cases

#### **EDUCATION**

## Master of Science in Computer Science and Engineering

Aug 2022 - Dec 2023

University at Buffalo, The State University of New York

Buffalo, New York, USA

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

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

Jul 2016 – May 2020

Kalinga Institute of Industrial Technology (KIIT University)

Bhubaneshwar, 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, Postman, Shell, Bash Functional Skills: Object Oriented Programming, Pair Programming, Test Driven Development, SDLC, Agile, Code Review Miscellaneous: Data Structures, PostgreSQL, MongoDB, Design Patterns, Microservices, Kubernetes, CI/CD

### **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