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* **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* **Aug 2023 – Dec 2023**
University at Buffalo (SUNY) *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* **Aug 2020 – Aug 2022**
NRI (Nomura Research Institute) FinTech *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 **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 application process** of in-house attendance app.
- 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, Algorithms, RDBMS, JDBC, TCP/IP, JSP Servlets, J2EE, MPI, OpenMP, Design Patterns.

ACHIEVEMENTS

Blog: Articulated 2+ insightful editorials/blogs/articles ([Brick Wall](#), [Minimum Area Rectangle](#), and [Recursion Guide](#)).
Hackathon: Secured University Rank 6 in Google Hash Code 2019 Team Competition.