CHIRAG C DASANNACHARYA

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EDUCATION

University of California, San Diego - *Master of Science in Computer Science*   Sep 2022 – Dec 2023 (Expected)

Birla Institute of Technology and Science, Pilani   2018 – 2022
Bachelor of Engineering in Computer Science (with distinction, CGPA - 9.58/10)
Courses - Operating Systems, Computer Architecture, Networks, Cloud Computing, Compilers, Algorithms, Microprocessors

EXPERIENCE

Nutanix Technologies   (Remote) Bangalore, India
Intern, Member of Technical Staff | Distributed Systems, Cloud Storage | C/C++, Python, Golang; AWS S3   *Jan 2022 – June 2022*
- Developed features for cloud storage; worked with distributed file servers, object stores and AWS S3
- Integrated an S3 object-based protocol server with the file server to provide S3 access to file storage
- Upgraded multi-cloud garbage collection to use AWS S3 lifecycle policies and object versioning
- Eliminated operational costs associated with garbage collection and simplified workflows

INSPIRE Lab, BITS Pilani   Pilani, India
Undergraduate Researcher | Multi-Agent Systems | C/C++, Boost, Player/Stage   *Jan 2021 – Dec 2021*
- Proposed strategies comparable to state-of-the-art for multi-robot area exploration, paper accepted at IROS 2022
- Developed solutions for cooperation with limited data in an unreliable communication environment
- Developed methods to ensure coordination, state management and fault tolerance in a decentralized setup
- Worked with path planning (A*, JPS), implemented and simulated strategies using C++

Nanyang Technological University / Datakrew Pte Ltd   (Remote) Singapore
Summer Scholar / Industry Intern | Backend Developement | Elixir   *May 2021 – July 2021*
- Part of NTU Singapore's Connect program, involving Datakrew's MADS IoT platform
- Developed some analytic data collection and aggregation flows; wrote tests to improve coverage

Bhaskaracharya Inst. for Space Applications and Geo-informatics   (Remote) Gandhinagar, India
Research Assistant | Open Source | Python, QGIS   *May 2020 – July 2020*
- Developed a QGIS plugin to obtain land surface temperature and statistics from satellite images

PROJECTS

Interpreter | *Programming Languages, C programming*   2020 –
- Developed a grammar and building an interpreter for an imperative programming language

Cloud Orchestration System | *Distributed Systems, Network Programming*   Nov 2021
- Implemented and ran services on a cloud system with containerization, autoscaling, monitoring, etc

Google File System | *File Systems, Distributed Systems*   Oct 2020
- Implemented GFS with metadata server, chunk servers and client mechanisms

Other Systems and Network Projects | *Computer Systems, C programming*   2020 –
- Implemented a concurrent TFTP server; terminal shell with piping and redirects; distributed merge sorting

Graph Theory Projects | *Graph Isomorphism and Processing*   2020-21
- Enhanced algorithms to generate rectangular floorplans given rooms and their adjacency relations
- Studied, implemented and enhanced techniques to detect random graph isomorphism

PUBLICATIONS

Multi-Robot Unknown Area Exploration Using Frontier Trees | *IEEE IROS 2022*   October 2022 (Upcoming)

ADDITIONAL DETAILS

Programming Languages: C/C++, Python, Java, Golang

BITS Pilani Merit Scholarship - 2020-22 - Awarded to top 3% of students each semester, 5 time awardee

ACM Student Chapter BITS Pilani - 2018-22 - Core Team member

International Linguistics Olympiad - 2017 bronze medal winner and 2018 participant