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 (distinction, CGPA - 9.58/10)

Experience

Nutanix — (Remote) Bangalore
Intern, Member of Technical Staff | Distributed Systems, Cloud Storage | C/C++, Python, Go, AWS S3 — Jan – June 2022
- Eliminated operational costs associated with multi-cloud garbage collection and simplified workflows
- Upgraded multi-cloud garbage collection to make use of AWS S3 lifecycle policies and object versioning
- Integrated an S3 object-based protocol server with Nutanix's distributed file server to provide S3 access to file storage

INSPIRE Lab, BITS Pilani — Pilani, India
Undergraduate Researcher | Decentralized Task Allocation | C/C++, Boost, Player/Stage — Jan – Dec 2021
- Proposed strategies comparable to state-of-the-art for multi-robot area exploration, work accepted at IROS 2022
- Developed algorithms for cooperation with limited data in an unreliable communication environment
- Developed methods to ensure coordination, state management and fault tolerance in a decentralized setup

Datakrew / NTU Singapore — (Remote) Singapore
Backend Intern / Summer Scholar (NTU Connect) | Backend, Agile Development | Elixir — May – July 2021
- Developed analytic data collection & aggregation flows and wrote tests for Datakrew's MADS IoT platform

Projects

Cloud Orchestration System | (Link) | Distributed Systems, Network Programming, Python — 2021
Led a team building a (Kubernetes-like) cluster system running containers with orchestration, autoscaling, monitoring, etc

Interpreter | (Link) | Programming Languages, C programming — 2020 –
Developed syntax, grammar and building an interpreter for a (hobby) programming language

GFS, Terminal Shell, TFTP, etc | (Link) | Computer Systems, Networks, C programming — 2020 –
Implemented Google File System; a terminal shell with piping and redirects; TFTP server; distributed merge sorting

Publications

Multi-Robot Unknown Area Exploration Using Frontier Trees | (DOI) | IEEE IROS 2022 — Oct 2022

Skills and Competencies

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

Frameworks and Tools: Linux, Multi-threading, gRPCs, Docker, GDB, Git, AWS, REST APIs

Ongoing Courses - Advanced Operating Systems, Parallel Computing, Virtualization

Others - Operating Systems, Computer Architecture, Cloud Computing, Networks, Compilers, Algorithms

Achievements and Additional Experience

BITS Pilani Merit Scholarship - 2020-22 - Awarded to top 3% of students each semester, 6 time awardee

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

BISAG-N Gandhinagar - Summer 2020 Research Asst (Wrote a QGIS python-plugin to get temperature from Landsat images)

International Linguistics Olympiad - 2017 bronze medal winner and 2018 participant