

NOV 2022 PRESENT	<i>PhD student under supervision of Prof. Boris Grot, UNIVERSITY OF EDINBURGH</i> <ul style="list-style-type: none">• Developing systems for large scale data analytics using serverless workers, spanning query planning, cost modeling, and query execution.• Other Projects:<ul style="list-style-type: none">– Zipline: Optimized data-intensive serverless workflows by developing methods to accelerate data transfers and reduce ephemeral storage costs.– Engineered systems that combine serverless functions and microservices to enhance load resilience and efficiently utilize diverse compute resources (link).
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WORK EXPERIENCE

AUG 2021 OCT 2022	<i>Software Engineer at MICROSOFT IDC, Hyderabad</i> <ul style="list-style-type: none">• Improved Microsoft Defender for iOS using various security heuristics.
JAN 2021 AUG 2021	<i>Research Intern at EASE LAB, The University of Edinburgh</i> <ul style="list-style-type: none">• Helping researchers optimize cold start delays in serverless functions.• Contributing to vhive (Open Source Framework for Serverless Experimentation).
AUGUST 2020 DEC 2020	<i>Professional Services Intern at AMAZON PROFESSIONAL SERVICES, New Delhi</i> <ul style="list-style-type: none">• Developed an automated proctoring system using eye-gaze tracking on AWS.
SUMMER 2020	<i>Summer Intern at MICROSOFT IDC, Hyderabad</i> <ul style="list-style-type: none">• Enabled Microsoft Defender ATP to scan, quarantine and report the threats inside Linux Docker containers.• Learned the inner workings of linux containers via linux namespaces, proc filesystem and union filesystems.
SUMMER 2019	<i>Research Intern at INDIAN INSTITUTE OF MANAGEMENT, Bangalore</i> <ul style="list-style-type: none">• Automated the digitisation using of 1931 Census data from scanned PDF images using open CV, python-multiprocess.• Developed a phonetic algorithm to compare and group similar sounding caste names using NLP.
SUMMER 2017	<i>Summer Intern at NATIONAL INNOVATION FOUNDATION, India</i> <ul style="list-style-type: none">• Redesigning a temporary shelter for the Salt Farmers of Kutch which kept the house 5°C cooler. Applied the concepts of Human centered designing and Design thinking

EDUCATION

AUG 16 - JULY 21 **MSc. in Economics & B.E. in Computer Science**
from **BITS Pilani**, Hyderabad campus
CGPA: 8.71/10 or 3.48/4

PROJECTS

AUG 19	Spotlight search for Linux
OCT 19	<i>Apple's spotlight like search engine for linux</i> <ul style="list-style-type: none">• Search inside the document like pdfs, Docx• Ranked search results in near real time using vector space model• Real time file monitoring for database updation using inotifywait• Advanced wildcard query support
FEB 19	Student Mess Registration Portal
MAR 19	<i>Portal has been deployed and currently registers 8000+ college students/sec</i> <ul style="list-style-type: none">• Increased registration capacity 20 fold to 8000+ requests/sec with 0 % error rate by designing a robust mechanism to handle critical race conditions• Designed CAPTCHA for the users to prevent people from scripting using go-lang + in-memory DB.
MAY 18	Nand2Tetris - 1
AUG 18	<i>Building computer from first principles</i> <ul style="list-style-type: none">• Built a programmable CPU in 6 stages starting from NAND gates as a part of nand2tetris course.• Stages included building:<ul style="list-style-type: none">- An Assembler program that translates programs written in the symbolic Hack assembly language into binary code- An ALU by combining logic gates, Flip-flops, and registers- Memory devices like RAM and ROM using Mux/Dmux and registers- Combining ALU, and memory to build CPU capable of running binary code loaded into memory

POSITIONS OF RESPONSIBILITY

AUG 19 - JULY 20	Member of Student Faculty Council for Department of Computer Science
AUG 19 - JULY 20	Ex officio Student Welfare Division
AUG 18 - JULY 19	Technical Head for Student Welfare Division <ul style="list-style-type: none">• Performed Ubuntu linux server administration using nginx.• Lead the team to develop<ul style="list-style-type: none">- Complaints portal to add, remove, filter all student complains using PHP and MySQL.- Automated certificate generation process to remove human intervention completely

COMPETITIONS

MARCH 2019	Finalist in Smart India Hackathon by Government of India <ul style="list-style-type: none">• Utilised IRNSS's Messaging Capabilities to direct people towards relief centers during disasters.• The proposed solutions included sending:<ul style="list-style-type: none">– 10 relief locations with 100m accuracy, in 220 bits.– Alternative of 4 locations, while adding 2 current weather & other critical information alongside• Simulated the satellite-phone interface using MQTT. Publisher/Suscriber model helped us in directing the message to appropriate client.
JULY 2014	National Science Exhibition <ul style="list-style-type: none">• Developed operational model of energy generation from footsteps to charge gadgets on the move and provide air cushion.• Stood runners-up at the state level.

SKILLS

Programming Languages: Golang, C/C++, Python
Technology: Databases, Cloud computing, FaaS

INTERESTS AND ACTIVITIES

Game Theory, Economics, Psychology
Rock Climbing, Ultimate Frisbee, Hiking