

Utkarsh Dwivedi

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EDUCATION

- **Birla Institute of Technology and Science** Pilani, India
Bachelor of Engineering in Computer Science *Aug. 2018 – Expected June. 2022*

EXPERIENCE

- **nurture.farm** Bangalore, India
Software Engineering Intern *Jan 2022 - Expected June 2022*
 - **Automated data aggregation:** Build automated **Golang**-based pipelines to aggregate rollout data from **AWS Athena** to **MySQL** database, scheduled by **Apache Airflow**.
 - **Internal discussion website:** Developed complete end-to-end company-wide idea-sharing and discussion website with upvote mechanics similar to Reddit using **ReactJS** for frontend, **Spring Boot** to handle backend and **MySQL** as database.
- **Goldman Sachs** Bangalore, India
Summer Analyst *Jun 2021 - Jul 2021*
 - **Data processing applications:** Worked on internal applications dealing with firmwide database searching, data management and data filtering.
- **Tamil Nadu Science and Technology Centre** Chennai, India
Research Intern *May 2020 - June 2020*
 - **Quantum Machine Learning:** Implemented QSVM and Hadamard Gate Classifier on real quantum backends offered by IBM to classify medical datasets and compared the performance to their classical counterparts.

PROJECTS

- **MHD Power Pvt Ltd company website:** Developed fullstack official company website using **MERN** stack.
- **Marker placement for localization in indoor environment:** In the capacity of study-oriented project, contributed to ongoing research by developing and implementing algorithms in **MATLAB** for placing markers in an indoor environment to facilitate navigation of automated agents.
- **Geolocation of GPS-enabled swarm drone:** Showcased performant gathering and processing of GPS data, by prototyping edge computers as **RPis** being fed constant stream of positional coordinates by **ESP8266s** that use serverless compute of **AWS Lambda** to visualize insights on a UI.
- **Blockchain driven secure 5G-enabled UAV Communication:** Created decentralized algorithm that powers a UAV swarm system to securely communicate and store sensor data utilizing **IPFS** technology.
- **Distributed Computing Architectures:** As part of my *Cloud Computing* course, worked on optimizing distributed processing on real-world data by utilizing **Hadoop MapReduce**, **Apache Spark** and **Apache Storm**, finally contrasting performance between all three.
- **Google File System:** As part of my *Network Programming* course, developed GFS in **C** using socket programming and IPC mechanisms.

CERTIFICATIONS

- **Advanced Machine Learning Specialization - Introduction to Machine Learning (Coursera):**
Higher School of Economics, Moscow

SKILLS

- **Languages:** C/C++, Rust, Go, Java, Python, JavaScript/TypeScript
- **Frontend:** HTML5, CSS3/Sass, ReactJS, MaterialUI, Redux
- **Backend:** SpringBoot, Node.js, gRPC
- **Database:** MongoDB, MySQL, AWS Athena, SQLite
- **Cloud:** AWS EC2, AWS Lambda, Hadoop Mapreduce, Apache Spark, Apache Storm
- **Devops:** Kubernetes, Microservices, Apache Airflow, Docker, Jenkins, Spinnaker
- **Tools:** Git, Unix, Bash
- **Courses:** Data Structures and Algorithms, Cloud Computing, Network Programming, Data Mining, Cryptography, Blockchain Technology, Database Systems, Digital Design, Microprocessors, Operating System, Computer Architecture