RISHABH KUMAR | 16GG20023

APPLIED GEOLOGY (M.Sc. 5Y)
MINOR in COMPUTER SCIENCE & ENGG. (B.Tech 4Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2021	M.SC(5YR)	IIT Kharagpur	8.51 / 10
2015	CBSE	DAV Public School ,NIT Campus Adityapur	87.6%
2013	ICSE	Kerala Public School, Kadma	89.2%

INTERNSHIPS

Department of Geology and Geophysics, IIT Kharagpur   **[June 2020 - August 2020]**

Spatio-temporal variation in Gastropod origination and extinction rates across Phanerozoic
- Global gastropod record was collected from online database and Time Series Analysis was performed over Phanerozoic Eon.
- Performed Data Analysis of 1,11,500 data representing 4526 unique genera belongs to 426 families using R Software (dplyr, ggplot).
- Computed the rate of origination and extinction for each time bin using the R code to capture the variation in diversity with time.
- The Overall data indicate a large variation in origination and extinction rate in tropics, extratropics and polar region across 30 time bin.
- Preliminary data analysis shows that the origination and extinction rate was higher in tropics before T- Jr (Triassic - Jurassic) mass extinction, but after T- Jr mass extinction event both origination and extinction rate became higher in extratropics than tropical region.

Demux Academy | Bangalore   **[April 2020 - June 2020]**

Configuring a AWS web server to host a web microservice
- Set up the AWS EC2 web server and configured different services through Virtual Hosting and Mysql as DB Host setup.
- Configured the DNS (Domain Name System) and mapped it with the AWS EC2 web server using Elastic IP.
- Created a short Application using a tech stack including CSS, JS, Bootstrap, React, Node.JS and used it as a primary project.
- Uploaded the project (web application) over github using version control and pulled the master branch to my server.
- Tech involved include AWS EC2 Ubuntu image, Elastic IP load balancer, Virtual Hosting through ApacheV2, Confd Configuration, Version Control(Github and Bitbucket), DNS Config and full web stack for the microservice.

Bharat PetroResources Limited | Mumbai   **[May 2019 - June 2019]**

Basic Well Log Interpretation and Pore Pressure Prediction Studies
- Computed various Petrophysical properties such as porosity, Vshale, Sw of the reservoir & identified contacts from the well log data.
- Performed well to seismic tie by generating Synthetic Seismogram of a particular well using sonic and density logs on Petrel.
- Mapped Faults, horizons and generated Volumetric attributes like Variance, Ant-Tracking for Fractures in Basement Reservoir.
- Identified prospective regions of hydrocarbon accumulation from well log data and estimated the Gross and Net reserve.

FRONTIER BASIN, Oil and Natural Gas Corporation | Dehradun   **[June 2019 - July 2019]**

3-D Seismic and Well Log Data Interpretation of Lower Vindhyan group of Son Valley, Vindhyan Basin
- Overview of the geology of area; Performed an integrated interpretation of seismic and well log data of Lower Vindhyan Basin.
- Performed well to seismic tie by generating Synthetic Seismogram of 4 wells in the study area using sonic and density logs.
- Horizon Mapping , 3D surface generation and Fault interpretation to bring out the structural framework of the study area.
- Interpreted the Time Structure and Time Thickness map to understand the Lithological and structural boundaries laterally.
- Correlated 4 wells on Petrel using open hole logs (Gamma, SP, Resistivity, Density, Neutron, Sonic) to understand the variation in facies.

AWARDS AND ACHIEVEMENTS

- Maintained a cumulative GPA of 9.14 in the previous three semesters.
- Recipient of Merit-Cum- Means Scholarship awarded by Department of School Education and Literacy, India for three consecutive years.
- Awarded with Super Acheiver's Award 2015-2016 for Academic excellence at D.A.V Public School, NIT campus Adityapur.

POSITIONS OF RESPONSIBILITY

Executive Head | Prithvi | Department of Geology and Geophysics   **[July 2017 - July 2019]**

- Part of the core and design team responsible for organizing Prithvi 2018 and 2019, India's biggest Earth Science symposium.
- Oversaw nationwide publicity of Prithvi; achieved **30%** increase in participation with more than **2000** registrations in 2019.
- Instrumental in securing sponsorship deals worth INR 3.0 Lakhs along with lectures and workshops by dignitaries from ONGC.
- Coordinated a team of **30** executive members for managing the events, workshops and guest lectures for Prithvi 2019.
- Nominated for the post of **Secretary** SEG, IIT Kharagpur Chapter-PRITHVI 2020 owing to the significant contributions in team.

Student Mentor | Student Welfare Group | IIT Kharagpur   **[July 2018 - Present]**

- Selected via peer review to an institute-wide team of 80 among 500 applicants as a part of the Student Mentor Programme.
- Mentored freshmen in academic, extra-academic and personal issues, to aid smooth transition into IIT Kharagpur culture.

COURSEWORK INFORMATION

- **Courses Taken:** Structural Geology | Sedimentalogy | Probability and Statistics | Design and Analysis of Algorithm | Algorithm Lab

SKILLS AND EXPERTISE

- **Software Tools:** Petrel | Techlog | MMRA | Visual Studio Basic   •**Programming Languages:** C | C++ | Python
- **Online Courses:** Machine Learning (A-Z) using Python, Intro to Data Analytics, Web Scraping using Python

EXTRA CURRICULAR ACTIVITIES

- Participated in the Round 1 of the Engineering campus challenge Flipkart Grid 2.0 under Software Development track
- Member of the winning team of the Football championship organized by the Earth Science Study Circle in 2017.
- Completed 2 years of NSO Sports and Games, IIT Kharagpur and member of Athletics Team, IIT Kharagpur.
- Participated in Inter Hall Athletics under General Championship Sports and Games in 2016, 2017 secured 4th position in Shotput (2017).
- Participated in Open IIT, Pentathlon and Trihalon Athletics in the events of Shotput and Discus in 2016, 2017.