# SYED JAWAD AKHTAR

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Objective to be hired on a trainee/full-time position with an innovative employer with great research & development opportunities. This will help in applying my knowledge from the field of data science, robotics and software engineering. Highly adaptable and dedicated to producing error-free results and quality of service.

## EDUCATION

Masters in Computer Science and Engineering **University of Oulu** 

## 2021 - Present

Oulu, Finland

**Bachelors in Computer Engineering** Zakir Husain College of Engineering and Technology

**2016 - 2020** 

Aligarh, India

## **EXPERIENCE**

### Research Assistant

### **University of Oulu**

🛗 June 2022 - Present

Oulu, Finland

• Researching on use of 360 cameras & VR headsets with tele-presence robots to improve immersive experience.

## Intern - IT Advisory

### **RSM Saudi Arabia**

August 2021

- **?** Riyadh, Saudi Arabia
- Auditing companies according to the cybersecurity controls of Saudi ARAMCO.
- Streamlining client requests and complete process of obtaining the compliance certificate using ServiceDesk Pro by ManageEngine.

### Chairperson

## Autonomous Underwater Club (Marine Technological Society) - ZHCET

Mark 2019 - July 2020

- Aligarh, Uttar Pradesh
- Mentor of MATE ROV International competition
- Research and development of acoustic localization on the AUV
- Vehicle simulation in Gazebo Robotics Simulator

## Research Internship

#### The University of Kiel

- Applying Artificial Neural Networks (ANN) on Geo-mechanical engineering.
- Use of analytical ANN for predicting thermal conductivity of sands and rocks from all around the world.

## **PROJECTS**

#### **Fake News Detection**

#### University of Oulu

Ctober 2022

**♀** Finland

Designed a system for automatic fake News identification from news articles corpus.

Tools & Algorithms: Tensorflow, scikit=learn, **NLTK** 

Telepresence robots with 360 camera

### **University of Oulu**

August 2022

Finland

View wireless live stream from a 360° camera in a Head-mounted Display (HMD) and move the robot using the HMD controllers.

Tools & Algorithms: THETA Z1 & V cameras, Probot DOLLY robot & Oculus 2.

Movie Review Project

#### **University of Oulu**

₩ March 2022

**♀** Finland

API based review system for movies recommendation.

Tools & Algorithms: SQLAlcehmy, Flask RESTful, Pytest

Targeted Advertising using IoT

#### **University of Oulu**

December 2021

**♀** Finland

Made a client-server architecture using MQTT protocols to detect age-gender of a person to show them a relevant advertisement.

Tools & Algorithms: Python, MQTT, Mosqquito broker, Gender-Age detector Deep Reinforcement Learning on **AUVs - Final Year Project** 

### Zakir Husain College of Engg. & Tech.

August 2020

**♀** India

Simulation of AUVs for detecting underwater pipeline defects using RL. Comparative study of RL optimizers (SAC & PPO) for completing the tasks.

Tools & Algorithms: Unity, ml-agents, ROS, Gazebo, RViz, Blender, Google Sketch-up

### Acoustic Localization of AUV's

### **Autonomous Underwater Vehicle Club**

**♀** India

Localization of a beacon underwater, using an array of hydrophones on an unmanned underwater vehicle.

Tools & Algorithms: NI MyRIO, Aquarian H1C, Time Delay of Arrival (TDOA)

## **PUBLICATIONS**

Neural Network Approaches for Computation of Soil Thermal Conductivity

Multidisciplinary Digital Publishing Institute

October 2022

Effective thermal conductivity of unsaturated soils based on deep learning algorithm

2nd International Conference on Energy Geotechnics

Movember 2020

Effective thermal conductivity of unsaturated sand using artificial neural network (ANN) and lattice element method (LEM)

**International Journal of Thermal Sciences** 

## February 2020

Estimation of seismic wave velocities of crustal metamorphic rocks using ANN

Materials today: Proceedings

December 2019

Mathura, India

## **PATENTS**

A low cost Autonomous Underwater Vehicle having five degrees of freedom and two thrusters

U.S. Patent Filing No. 15949553

United States

6 Pin Underwater Electrical Connector Indian Patent Application No. 201811027144

# LANGUAGE/SKILLS



## WORKSHOPS/CONFERENCES

- Presenter 10th International
  Conference on Materials Processing and Characterization (ICMPC - 2020
- NoSQL, Bigdata & Artificial Intelligence Conference by Datumcom
- Introduction to UAV's and Drones
- Android Web Development and Web Designing

## **ACHIEVEMENTS**

#### **Nokia Hackathon**

Show-cased a solution and demo for solving problems related to farming & middle-men [Link]



Students Autonomous Underwater Vehicle Competition 2019 Won 4th position nationally computer team member



Singapore AUV Challenge 2018 Lead the team and won the Best AUV award



**Co - Founder of AUV ZHCET Club**One of the founding members of the technical club in college



### **Top 4 Idea Presentation**

"AUV Surveillance" at Inspiring Entrepreneurs Summit 2018, Saudi Arabia



### HackDTU Hackathon

Implemented & showcased an online car parking system

## **COURSES**

- Unity learners hub Game development with VR
- Self-Driving Cars with ROS 2 and Autoware – ApexAI
- Deep Learning A-Z<sup>TM</sup> Hands on Artificial Neural Networks Proficiency course on Python - Udemy

# **CO-CURRICULAR**







