

SYED JAWAD AKHTAR

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As a recent graduate from the University of Oulu with a strong foundation in robotics, software engineering, and data science, my objective is to secure a full-time position with an employer that offers challenging software research and development opportunities. I am eager to apply my competitive technological skills and passion for innovation to contribute to cutting-edge projects and further enhance my expertise in the field.

EDUCATION

Master in Computer Science and Engineering

University of Oulu

2021 – 2023 Oulu, Finland

Masters thesis: **A motion control method for a differential drive robot based on human walking for immersive telepresence**

Bachelor in Computer Engineering

Zakir Husain College of Engineering and Technology

2016 – 2020 Aligarh, India

EXPERIENCE

Research Assistant

Perception Engineering Group, UBICOMP, University of Oulu

June 2022 - Present Oulu, Finland

Use of 360° cameras & VR headsets with telepresence robots to improve the 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 using ServiceDesk Pro by ManageEngine.

Chairperson

Autonomous Underwater Vehicle Club (Marine Technological Society) - ZHCET

August 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

June 2019 – August 2019 Kiel, Germany

Use of analytical ANN for predicting thermal conductivity of sands and rocks from all around the world.

TECH SKILLS

C C++ C# Python MATLAB
SQL Java Unity ROS 1 & 2
Gazebo LGSVL Sim Blender
Simulink LabView Android Studio
UML LaTeX Markdown
Photoshop CS6 Premiere CS6
Audition CS6

PROJECTS

Telepresence robots with 360° camera

University of Oulu

August 2022 Finland

View live video stream from a 360° camera in a Head-Mounted Display (HMD) and move a DDR using body trackers.

Tools & Algorithms: 360° cameras, DOLLY robot & Valve index.

Fake News Detection

University of Oulu

October 2022 Finland

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

Tools & Algorithms: Tensorflow, scikit-learn, NLTK

Movie Review Project

University of Oulu

March 2022 Finland

API-based review system for movies recommendation.

Tools & Algorithms: SQLAlchemy, Flask RESTful, Pytest

Targeted Advertising using IoT

University of Oulu

December 2021 Finland

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

Tools & Algorithms: Python, MQTT, Mosquitto broker, Gender-Age detector

Deep Reinforcement Learning on AUVs - Final Year Project

Zakir Husain College of Engg. & Tech.

📅 August 2020

📍 India

Simulation of AUVs 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 AUVs

Autonomous Underwater Vehicle Club

📅 January 2019

📍 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

📅 November 2020

📍 La Jolla, California

Soft and hard computation methods for estimation of the effective thermal conductivity of sands

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

Patent No. 418647

📅 January 2023

📍 India

6 Pin Underwater Electrical Connector

Indian Patent Application No. 201811027144

📅 July 2018

📍 India

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

Led the team and won the Best AUV award



Co-Founder of AUV ZHCET Club

Raised ~400k INR in the first year



Top 4 Idea Presentations

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

WORKSHOPS/CONFERENCES

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

COURSES

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

CO-CURRICULAR



Student tutor and university Ambassador - University of Oulu



Blood donation campaign organizer



Social Media manager at Recrufest 2018 - A Mega Job fair