

ALIN ZOHARI

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EXPERIENCE

GIS ANALYST AND TECHNICIAN

Malvus Sense Sdn. Bhd.

Oct 2020 - May 2022

FME, ESRI ModelBuilder and ArcGIS, QGIS, Pix4D, Global Mapper, GDAL, Agile Methodology

- Contribute to the end-to-end processing, generation, and analysis of geomorphological features obtained from raw point clouds of Photogrammetry and LiDAR data.
- Develop comprehensive software manuals, presentations, and foundational training for both corporate and individual users of Geospatial software, specifically tailored for GPS and Ground Control processing, Photogrammetry, LiDAR data processing, product analysis and data presentation

ADMINISTRATOR ASSISTANT (PART-TIME)

HZF Resources Sdn. Bhd.

Nov 2022 – May 2023

Microsoft Office, Power BI, Adobe InDesign, Organization, Written Communication, Cloud Computing

- Managed documents, performed data entry and record-keeping, assisted with event planning, conducted research, prepared reports, pamphlets and technical documentation, and provided essential administrative support for the seamless operation of the office and organization.

EDUCATION

MSc Geospatial Science (GIS and Computing)

Sep 2022 – Sep 2023

UNIVERSITY COLLEGE LONDON, Gower St, London WC1E 6BT

Accreditation: Royal Institution of Chartered Surveyors (RICS)

Modules: Geospatial Science, Web & Mobile GIS, Spatial Analysis & Geo computation, Spatial-Temporal Data Analysis & Data Mining, Spatial Databases & Data Management, Geospatial Programming, Applied Building Information Model, Machine Learning for Data Sciences.

Dissertation: Leveraging Language Models for Information Extraction of Entities in Orbital Environment Evolution

Natural Language Processing (NLP), OpenAI API, Hugging Face, Google Colab, Streamlit, PyTorch, Tensorflow

Led the development and exploration of an optimal NLP pipeline to extract orbital environment entities from official documents, utilizing three language model approaches: In-Context Learning with Large Language Models (LLMs), Embedding with a Retrieval QA (Question Answer) model, and Fine-Tuning QA model.

BSc HONS Earth and Ocean Science

UNIVERSITY OF BRIGHTON, Lewes Road, Brighton, BN2 4AT

Accreditation: Institution of Environmental Sciences (IES)

Notable Modules: Environment Impact Assessment, Physical and Chemical Oceanography

Award: Second Class Honours (Upper Division)

Dissertation: Changing in Sediment Regime of River Kelantan using GIS and Remote Sensing

Landsat 8, Sentinel-2, ENVI

Examined the relationship between land cover, land use, and sediment change within a 500-meter buffer zone on both sides of the riverbank, utilizing Landsat 8 datasets. The comprehensive analysis was carried out over a 5-year period, encompassing the area from Kuala Krai to Tumpat, Malaysia.

PROJECT

APP AND RESTFUL API FOR SPATIAL DATA OF ASSETS AND FACILITIES MANAGEMENT

JavaScript, HTML5, React, Node.js, PostgreSQL, PostGIS, CesiumJS, Git and GitHub

- Developed an asset management application, allowing users to create assets (desktop view) and rate their conditions (mobile phone view) using its coordinate, utilizing Bootstrap framework.
- Implemented RESTful Data APIs with specific endpoints and unique URLs to establish a seamless connection between the app and the database system.
- Streamlined seamless frontend-backend connection, supported by PostgreSQL and PostGIS

SUPERVISED MACHINE LEARNING ALGORITHMS ON ADULT DATA SET

Python, Jupyter Notebook, Matplotlib, Scikit, PyTorch, Tensorflow, Teamwork, CI/CD pipeline

- Performed a collaborative binary classification supervised machine learning algorithm to an adult dataset
- The family algorithm and its learning algorithm includes Decision Trees: CART algorithm; Instance-based learning: k-Nearest Neighbours; Neural Networks: Feedforward Neural Network, FNN; Bayesian Learning: GaussianNB, CategoricalNB, BernoulliNB; Model Ensembles: Stacking (voting mechanism)

THEFT CRIME CLUSTERING IN CITY OF CHICAGO USING DENSITY-BASED ALGORITHM

Python, R, Statistical and Spatial Analysis

- Analysing theft incidents in Chicago from January to December 2022, Kernel Density Estimation (KDE)
- DBSCAN and ST-DBSCAN is used to identify spatial and spatial-temporal clusters respectively, validated by the Silhouette Score for reliable cluster models.

FLOOD EMERGENCY PLANNING APPLICATION

JavaScript, Python, Pandas, Geopandas, NumPy, NetworkX

- Developed a collaborative Python program and documentation for an Isle of Wight flood emergency planning tool.
- Users input their coordinates to find the nearest highest elevation point within a 5-kilometer radius or specified radius given by user and the software offers the shortest routes and estimated walking times to reach that point.

3D BIM MODELLING FROM POINT CLOUD

Revit, Recap, Autodesk 360, Video Editing, AR Dissemination

- Developed 3D model of a section of a University Department building using 3D point cloud data, adhering to the Plowman Craven's BIM Survey Specification, Level 4
- Comprehensive documentation was produced to ensure clarity in the 3D model creation process, and effective dissemination methods were employed to present the results to the client.

VOLUNTEERISM AND INTEREST

MATHEMATICS TUTOR

Rakan Tutor

- Commit up to 4 hours a hours per week to tutor students in the SPM Mathematics syllabus (Malaysian Certificate of Education) with the objective of not only assisting them with Mathematics but also empowering them with effective learning skills, boosting their academic confidence, and instilling the motivation to reach their full potential

YOUTH RANGER

Sussex Wildlife Trust

- Carries out conservation work in and around Brighton area includes habitat management, wildlife gardening, identification, surveying and monitoring wildlife

PROJECT LEADER FOR PROJECT PENYU (SEA TURTLE)

Charisma Movement

- First Stage comprise of volunteers actively participate in the long-term tagging and nesting study of green and hawksbill turtles at Chagar Hutang, Redang Island, in collaboration with SEATRU (The Sea Turtle Research Unit, Universiti Malaysia Terengganu)
- Second Stage focuses on engaging the local community through organized talks in schools on both the island and mainland.

FACILITATOR IN ENTREPRENEURSHIP AND INNOVATION WORKSHOP

The Kalsom Movement

- Facilitate students fostering their interest and aspirations in the fields of business, finance, and innovation.