ALIN ZOHARI

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EXPERIENCE

GIS ANALYST AND TECHNICIAN

Malvus Sense Sdn. Bhd.

Oct 2020 -May 2022

FME, ArcGIS Suite, ESRI ModelBuilder, QGIS, GRASS GIS, Pix4D, Technical Writing, Agile Methodology

- Contribute to the end-to-end processing, generation, and analysis of geomorphological features obtained from raw UAV 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 visualisation and presentation.

ADMINISTRATOR ASSISTANT (PART-TIME)

HZF Resources Sdn. Bhd.

Nov 2022 – *May* 2023

Microsoft Office Suite, Google Workspace, Power BI, Adobe InDesign, Organization, 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 and Hugging Face API, Scikit-learn, PyTorch, Keras*

Led the development and exploration of an optimal NLP pipeline to extract orbital environment entities from unstructured 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

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

Landsat 8, Sentinel-2, Remote Sensing, ENVI, ArcGIS Suite

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.

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

JavaScript, HTML5, CSS, 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-learn, PyTorch, Collaboration and Teamwork

- Performed a collaborative binary classification supervised machine learning algorithm.
- 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: GuassianNB, CategoricalNB, BernoulliNB; Model Ensembles: Stacking (voting mechanism).

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

Python, Seaborn, Plotly, R, R Markdown, Statistical and Spatial Analysis

- Analysed 2022 Chicago theft incidents using Kernel Density Estimation (KDE) for pattern identification.
- Applied DBSCAN and ST-DBSCAN for spatial and spatio-temporal clustering, validated by Silhouette Scores for model reliability.

FLOOD EMERGENCY PLANNING APPLICATION

JavaScript, GeoJSON, Python, GDAL, Pandas, Geopandas, NumPy, NetworkX

• Developed a Python programme for Isle of Wight flood planning, allowing users to find the nearest high ground and shortest routes within a specified radius, complete with estimated walking times.

3D BIM MODELLING FROM POINT CLOUD

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

- Developed 3D model of a section in a University Department building from 3D point cloud data, following Plowman Craven's BIM Survey Specification, Level 4 BIM Survey Specification.
- Produced detailed documentation for the 3D modelling process and employed effective dissemination strategies to present results to clients.

VOLUNTEERISM AND INTEREST

MATHEMATICS TUTOR

Rakan Tutor

• Tutored in SPM Mathematics, enhancing understanding, fostering learning strategies, boosting academic confidence, and motivating students to achieve their potential.

YOUTH RANGER

Sussex Wildlife Trust

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

PROJECT LEADER FOR PROJECT PENYU (SEA TURTLE)

Charisma Movement

- The 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, University Malaysia Terengganu.
- The 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 Facilitates workshops to foster students' interest and aspirations in the fields of business, finance, and innovation.