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Website: https://hub.docker.com/u/dhackbility/   **Website:** https://taofeekaoyusuf.github.io/taoy.github.io/

Skype: biodunyus **LinkedIn:** https://www.linkedin.com/in/taoy/

EDUCATION AND TRAINING

[07/09/2009 – 05/07/2011] **Information Technology and Business Information Systems**

Middlesex University, Hendon, London, United Kingdom
https://www.mdx.ac.uk/

Address: Middlesex University, The Burroughs, Hendon, NW4 4BT, London, United Kingdom
Field(s) of study: Information Technology and Business Information Systems
Final grade: 3.50 4.00
Thesis: Human Computer Interaction Game for Children with Dyslexia under the Age of 10.

[13/03/2014 – 14/07/2017] **Computer Science and Engineering**

Istanbul Technical University, Istanbul, Turkey   https://itu.edu.tr/

Address: Istanbul Technical University, Ayazaga, Istanbul, Turkey, Istanbul, Turkey
Field(s) of study: Computer Science and Engineering
Final grade: 3.39 / 4.00
Thesis: Impact on Inter-Vehicular Communication Performance on Different Traffic Mobility Model: A Case Study of Ad Hoc On-Demand Distance Vector Routing Protocol

[22/09/2019 – 31/08/2020] **Informatics (Data Science) and Telecommunication (5G) Systems with Data Analytics**

National and Kapodistrian University of Athens   https://en.uoa.gr/

Address: National and Kapodistrian University of Athens, Athens 157 72, Greece, 157 72, Athens, Greece
Field(s) of study: Big Data and Telecom Network Systems
Final grade: 8.15 / 10.00

[09/09/2020 – 05/07/2021] **Optical Telcommunication Systems and Photonics**

Telecom IP-Paris   https://www.ip-paris.fr/

Address: 19 place marguerite perey, 91120, Palaiseau, France
Field(s) of study: Optical Communication and Photonics
Final grade: 12.00 / 20.00
Thesis: Optical Wireless Communication: Light-Fidelity (Li-Fi) case study

LANGUAGE SKILLS

Mother tongue(s): English

Other language(s):

Turkish

LISTENING B2 **READING** B2 **WRITING** C2

SPOKEN PRODUCTION B1 **SPOKEN INTERACTION** B1

French

LISTENING A1 **READING** B1 **WRITING** B1

SPOKEN PRODUCTION A1 **SPOKEN INTERACTION** A1

DIGITAL SKILLS

Data Skills

Big Data: Hadoop | Spark | PySpark | Databricks | Data Analytics | Power BI | Data Visualization | Data Science | Alteryx Designer | SAP Data Analytics | Data Engineering | Tableau | Data Mining

Artificial Intelligence Skills

Tensorflow | Machine Learning | Deep Learning | PyTorch | Computer Vision | Natural Language Processing (NLP) | Scikit-Learn | Statistical Thinking and Analytics | Time-Series Analysis | OpenCV | Keras

Cloud and DevOps

Bash Script | Virtualization | Heroku | Cloud Platform: AWS | GCP | Azure | Dockers | Kubernetes | Terraform | Ansible | Helm | Git | GitHub | GitLab | GitAction | Networking | Streamlit

Programming Languages

Python Programming | R Programming | HTML | CSS | JavaScript | Java Programming

Databases

MySQL | PostgreSQL | Microsoft SQL Server | MongoDB | JSON

Other Skills

Telecommunication | Data Pipeline Building | Application Deployment | Photonics | Application Containerization | MLOps | Data & Application Orchestration | GitOps | DataOps

PUBLICATIONS

[2017]

Impact on Inter-Vehicular Communication Performance on Different Traffic Mobility Model: A Case Study of Ad Hoc On-Demand Distance Vector Routing Protocol.

https://doi.10.1145/3129186.3129188

Reference: T.A.O. Yusuf, and D. T. Altilar. 2017.

One of the recent developing technologies of our time is the Vehicle Ad-Hoc Network popularly known as VANET which integrates ad-hoc wireless network and Cellular technology for achieving intelligent inter-vehicular communication. This is projected towards improving driver and passenger's comfort, safety and road traffic efficiency. Inter-vehicular communication is made possible by passing a message from one vehicle to another through using a reliable routing protocol. The usage of efficient and reliable routing protocol has created many research areas for Researchers and has helped to ensure end-to-end packet delivery in recent times, regardless of the incessant changing network topology of Vehicle Ad-Hoc Network. In this research, ad-hoc On Demand Distance Vector Routing Protocol (AODV) was evaluated against some network performance metrics, such as Packet data loss, Packet delay and throughput using CityMob traffic generator, which is one of the most popular vehicular traffic mobility generators, for generating mobility for the communicating vehicular nodes. We created some communicating vehicular nodes and tested them in different traffic mobility scenarios using AODV routing protocol as our case study. The results we got were far from being verbose as we simulated close to real life traffic mobility and showed that AODV routing protocol thrives better in Simple and Highway traffic mobility model as compared to Improved Manhattan traffic mobility model.

[2021] **Optical Wireless Network: Light-Fidelity (Li-Fi) Case Study**

Reference: Taofeek A.O. Yusuf

Optical wireless communications (OWC) refer to wireless communication technologies which utilize optical carriers in infrared, visible light, or ultraviolet bands of electromagnetic spectrum. For the sake of an OWC link design and performance evaluation, a comprehensive understanding and an accurate prediction of link behavior are indispensable. Therefore, accurate and efficient channel models are crucial for the OWC link design. In this thesis, some investigative research regarding some performance metrics of Optical Wireless communication in the domain of Light-Fidelity communication was carried out. We investigated the data rate throughput between the Optical transmitter and the Optical receiver as the first major experiment carried out in this research. The findings from this experiment prompted the curiosity to further investigate the amount of throughput that are gotten at different transmission distance of the optical transmitter with regards to the optical receiver distance, and it was discovered that data rate are maximum at a considerable distance of 1.725 and 1.1915 meters of the Access Points (APs), respectively.

RECOMMENDATIONS

Assist. Prof.

Name: Husamettin Osmanoglu
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University Professor at Biruni University, Istanbul, Turkey.

Dr.
Name: Alzaq Husam
Phone number: (+90) 5396615967
Email: alzaq@itu.edu.tr

Assistant Lecturer at Istanbul technical University, Istanbul, Turkey.

PROJECTS

Machine Learning for measuring the Performance of Optical Networks Quality of Service

GNPy, an open source optical route planning library based on Gaussian noise model was used to setup few Inter-city optical route from which data was generated that was used in evaluating the performance of the network on which different Machine Learning models was built in order to determine the best model that will provide optimal Quality of Service (QoS) for the orchestrated networks.

Hepatitis Disease Detection and Prediction with PyCaret

In this project, hepatitis disease detection and prediction based-off the constituting blood features was investigated. The Machine model used to carry out this operation is the Random Forest Model which is the model that has the best performance factor out of the test ML model for this scenario dataset. It is well known that Hepatitis is a dangerous diseases that can affect the liver of anyone no matter the age group, and to this effect, utmost care should be taken in checking for symptoms and consulting the appropriate Physician.

Depression Detection in Workers

This is an in-house company project in which we leverage the power of Natural Language Processing to analyze the behavioral and sentiments of a company worker using the chats and messages of the Company messaging platform as the dataset on which the Machine learning model was performed. We used this dataset to try as much as possible to infer keywords that could be associated to sadness, frustration, and depression as many workers go through many tough times and some could relieve themselves of these burdens through chats with co-worker, or as frustration towards their colleagues at work. This was a great initiative project to ensure we put an eye on our Employees and to show we care about their mental welfare.

Data Engineering with Python and PostgreSQL

In this project, the power of PostgreSQL in conjunction with Python programming was harnessed to engineer data that could be used for analysis work and insight derivation by respective Data Scientist. The Python library Psycopg2, which is the most popular PostgreSQL database adapter for the Python Programming language was used and which has complete implementation of the Python DB API 2.0 specification and the thread safety (several threads can share the same connection). It was designed for heavily multi-threaded applications that create and destroy lots of cursors and make a large number number of concurrent "INSERT"s or "UPDATE"s.

Big Data: Engineering Application in Healthcare

This project is on Big Data Engineering in the domain of Healthcare. The need for Federated data application in Healthcare and other aspects involving Healthcare can not be over-emphasized. Ranging from sourcing, transformation, storage and analyzing the big data collection involving patient and other medical information is an essential project must be encourage. Some Data-Federation techniques were put to use in this project.

Sales Forecasting and Revenue Prediction Project

Machine learning in sales forecasting is the process of training of a model to take sales activity data, learn how each input contributes to a weighted output, and use the model to predict outcome based on previously unseen and real-time performance data. In this project, the power of Machine Learning was leveraged to predict the company overall sales forecast and returned revenue by building a robust Machine learning model based on defined monetary threshold and customer history with the company.

Creditworthiness: A case study of Company's Customers seeking loan

This project involves systematic evaluation of Customer's creditworthiness using their credit scores and historical credit data in order to decide if the said Customer is worthy of a loan grant or not. A robust ML model was build and trained on customer historical dataset in order to determine the Company's new customer creditworthiness.

Stock Price Application Deployment with Streamlit

This project gave an overview of the Stock market highlights for Exxon Mobil Company which is used as case study in this project. The App was containerized using dockers and uploaded on Docker Hub, that host application containers. The application was then deployed online using the Streamlit which is an open-source app framework for Machine Learning and Data Science teams.

HONOURS AND AWARDS

[07/02/2010] **Top Graduate Worldwide (International Diploma in Computing [IDIC]) Awarding institution:** Informatics Academy, Singapore

Secured the Worldwide top graduating student position in International diploma in Computing [IDIC] at Informatics Academy, Singapore.

[05/07/2011] **Top Best 5 Graduating Students Awarding institution:** Middlesex University.

Among the top best 5 graduating students in Information technology and Business Information Systems, at Middlesex University, 2011 Batch, in Bachelors of Information Technology and Business Information Systems.

Good Day Prof|Sir|Madam, I am looking for opportunities that align with my line of studies and skill-sets. And I am readily available to start in this position as soon as you can make it possible. Thank you for your understanding. Respectfully, Taofeek