Manlu Xu

Cloud Engineer

Kongens Lyngby, Capital Region, Denmark | +4550389051 | xumanlu@outlook.com
linkedin.com/in/manluxu/

Cloud Services / DevOps / Kubernetes / Machine Learning / IoT / Data Mining and Visualization

I'm logically-minded and analytical, with the ability to working independently. Easy-going and congenial, with a strong sense of responsibility and good team spirit. Thinks systematically plans effectively.

I am interested in design and implementation of IT services and applications regarding IoT, as well as working with machine learning in the field of forecasting. My diverse project experience provides a solid foundation to tackle the issues faced when carrying out an engineering application in an agile environment. I seek more challenge and personal growth in a field that calls on my IT skills, attention to detail, and love of technology.

Experience

Cloud Engineer — 2019-10 - ongoing

Novozymes

Deploying and managing cloud data platform architecture, enabling end-to-end effective use and access of data hosted from AWS, supporting the exploitation of data, leverage the cloud to meet business goals.

Building and maintaining a self service application development platform through containerization (AWS EKS)and CI/CD pipelines, which be used by app development engineers onboarding applications swimmingly.

Also offering consultancy on architecture design and implementation customized to users' needs.

Student Assistant in Fotonik DTU — 2018-10 - 2019-09

Network Service Platform DTU

Testing instance module on Azure IoT hub service platforms.

Teaching assistant for bachelor project regarding human detection.

Undergraduate Research Assistant — 2015-03 - 2015-06

Wuhan National Laboratory for Optoelectronics

Researched filamentary propagation of Femtosecond Laser for Bachelor's thesis.

Education

M.Sc — 2016 - 2019

Technical University of Denmark

Telecommunication Engineering

B.Sc — 2011 - 2015

Wuhan Institute of Technology

Optical Information Science and Technology

SKILLS

Tools & Technologies

Python
Go
Terraform
DevOps
Kubernetes
D3.js
PyTorch
Microsoft - Office

Services

AWS
IBM-Cloud
Azure
The Things Network (TNN)

Language

Chinese (Native)
English (Full professional proficiency)
Danish (Elementary proficiency)

Awards & Honors

Second-class Scholarship — Jul 2014

Third-class Scholarship — Nov 2013

Interests & Hobby

Data Visualization

Swimming

Jogging

Other Competences

Computer Enthusiasts Association

Tutor at Wuhan Institute of Technology, Youth Volunteers Association

Projects

Self-service application development platform
Sep 2021 - ongoing

The self-service application platform is used by internal developer provisioning apps quickly. Using Kubernetes for automating and scaling deployment, ArgoCD and Github Actions for continuous integration, Terraform for managing infrastructure as code.

IoT data framework
Oct 2019 - Aug 2021

The IoT framework using AWS Greengrass, Kafka, datadog, Lambda and so on helps users to bring alive IoT projects at all levels, having end-to-end setup that can stream sensor data for analysis and monitoring.

Deep learning technique for intelligent trajectory prediction
Mar 2019 - Sep 2019

Proposes a trajectory prediction framework with relatively high accuracy using deep learning approach (Feedforward network MLP, and bidirectional recurrent neural network with gate recurrent unit Bi-GRU) equipped with state-of-art algorithms (Embedding time and metadata inspired from NLP, using Mean-shift and grids-based algorithms for clustering) to define the trajectory prediction as a classification problem. Solve the challenging problem in the domain of intelligent transport system, optimizing transportation system regarding fuel-saving, traffic lessening, and ease of mobility.

Multi-class image recognition of food for the determination of appropriate insulin dosages
Sep 2018 - Dec 2018

Using deep learning based on Faster R-CNN for efficient and accurate food detection from images containing multiple types of food. The model simplifying the task of regulating blood sugars by detecting food types from images and looking up nutrition values automatically.

Temperature sensor control webapp
Jun 2018 - Sep 2018

IoT-based energy efficiency platform and web application regarding smart building, monitoring a LoRaWAN connected temperature sensor status.

Stories about Airbnb in NYC 2017
Feb 2018 - May 2018

The project to investigate potential differences in Airbnb price, with respect to location, room type, guests, and other features using powerful data visualization tool D3.js.

The intelligent trashcan
Feb 2018 - May 2018

Developed an IoT system with real-time monitoring of the trash level enables the maintenance staff to receive notifications when a trashcan is full and ready for collection used LoRaWAN and MQTT on IBM-Cloud platform with TNN.