

Anukool Purohit

Deep Learning Engineer

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🔗 <https://anukoolpurohit.github.io/>

PROFESSIONAL EXPERIENCE

Sr. Deep Learning Engineer

02/2022 – present
Remote

Siterecon

Was part of the team that built the end-to-end ml pipeline.

Transformed the early-stage scripts in Jupyter Notebooks into well-written SOLID code with excellent test coverage.

Responsible for developing the code for scalable training and inference.

Responsible for setting up DevOps and MLOps Tools for the ML team.

Responsible for managing the ML infrastructure.


Helped come up with a novel algorithm for a special case of polygon simplification problem.

Helped build the data filtering and validation pipeline.

Came up with model improvements that improved performance from 0.91 to 0.94 IoU for a novel image segmentation problem.

Software Engineer

09/2019 – 07/2021
Remote

Readink 

Helped develop the data labelling and curation tools.

Implementation of a functional k-means clustering engine in python.

Data Scientist

03/2017 – 07/2019
Remote

Kornea Digital 

Leverage data analytics to support customer development, marketing and product management for clients

EDUCATION

PhD Dropped out

09/2014 – 11/2015
Salt Lake City, Utah

University of Utah

B-tech Computer Science

09/2009 – 05/2013
Pilani, India

BK Birla Institute of Engineering and Technology, Rajathan Technical University

COURSES

Deep Learning

08/2021

Nueromatch Academy

Computational Nueroscience

07/2021

Nueromatch Academy

Deep Learning

12/2018

DeepLearningAI

PROJECTS

Decoding neural activity of handwriting planning in the motor cortex

08/2021

Nueromatch academy

We hypothesised that since high dimensional neural activity in human brains can be represented by a small number of latent factors, these latent factors can be used to decode neural activity.

We extract latent factors in the neural data using LFADS, which were then used to predict the BCI output.

Investigating the role of the visual word form area during word recognition.

07/2021

Nueromatch academy

Human performance of recognizing a word should degrade with higher word frequency. We hypothesised that this is due to the visual word form area in the brain failing to identify words that are moving too fast.

We test this hypothesis using fMRI data of a person performing word recognition tasks at different word frequencies. The frequency stimulus signal processed through a hemodynamic response function is encoded using a GLM. The resulting model shows that visual word form area HRF response shows an inverted `U` shape change with increasing frequency.

Extending RRT algorithm for moving obstacles

12/2014

University of Utah

Built a simulated environment for a visual representation of the RRT algorithm in Matlab, where some obstacles moved. At each step of the Path planning algorithm, we calculate the new location of obstacles using a GMM.

EKF SLAM

12/2012

BKBIET

Implemented EKF Slam in Matlab on a LegoMindstorm NXT, using its sonar sensor. The Robot successfully navigated semi-structured environments.

SKILLS

Programming Languages

Python, C++

Machine Learning Stack

Pytorch, Pytorch Lightning, FastAI, torchvision, torchtext, Scikit-learn, pandas, NumPy, Opencv, spacy, matplotlib, wandb, mlflow, clearml, mlflow, hydra, DVC, ONNX.

Backend Development stack

FastAPI, Flask, Postgres, Kafka, Ray, docker, git.

Cloud and Data Tools

Kafka, Postgres, DVC, pyspark, GCP, Pub/sub, gcloud-sdk, gcp-sql, AWS, bash scripting