### Santosh Sawant

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santoshsawant



ssawant.github.io

LLM Architect learning to innovate, optimize, and scale the next generation of large language models.

## **CERTIFICATION**







#### **SKILLS**

**Libs & Frameworks:** Pytorch, Tensorflow, Nvidia NeMo Hugging Face TRL, vLLM, DeepSpeed-FastGen, Autogen, CrewAl

**Programming Language**: *python, golang, rust, Java, javascript and c*++.

#### **WORK EXPERIENCE**

### Sr Solution Architect Generative Al @ Philips. (2024 - present)

Working towards enabling LLM powered Kennis AI search assistant with a goal of reducing  $5 \sim 10$  % of overall Philips customer care workload.

- Developing a Multi Agent modular platform, which enables org wide internal search and actions.
- Fine-tuning LLM with a multi LoRA adaptor for Agent routing.

## Sr Architect Machine Learning @ Tredence Inc. (2022 - 2024)

Leading a cross-functional team to deliver a cutting-edge Generative Al platform and products in the Data Analytics, Healthcare and ESG domain.

- Fine-tuning LLM with multi LoRA adaptor for domain specific task in Retail, CPG and Supply Chain domain
- Developed distributed cloud GPU training approaches for LLMs models, including data distribution editing, data quality improvements, and representation learning with self-supervision.
- Experience in reading papers and implementing algorithms described in papers to increase performance, quality, data management, and accuracy of AI systems.
- Designed lean proofs of concepts (POC) to answer targeted business questions using Gen.Al.
- Design, Developed and integrated various large-scale, distributed machine learning systems for production ready Gen.Al services.

### Lead Machine Learning Engineer @ Parallel Wireless (2021 - 2022)

Lead Machine Learning engineer at parallel wireless. Responsible for developing end-to-end machine learning pipeline along with defining and executing ML workflows.

- Developed a key performance index forecasting system using LSTM with 70% accuracy; entailing reduced network downtime with improved log-collection triggering.
- Defined and executed specific ML workflow, which includes data collection, sampling, model building and training, metrics definition and evaluation.

## Principal Engineer @ OLA

(2015 - 2021)

Lead engineering team at OLA. Responsible for developing and scaling various data, machine learning and application pipelines.

- Develop services and components for deploying Airflow and flink clusters on kubernetes and onboarded/scaled various Data and BI spark and flink jobs pipelines.
- Develop services and components for feature store integration with existing data and ml pipeline

SDET - 2 @ Zynga	(2011 - 2014)
SDET - 2 @ Pengala	(2010 - 2011)
SDET - 1 @ Dell - EMC	(2007 - 2010)

# **WORK PROJECTS**

#### Kennis Al Search Assistant

(Philips.)

Working towards enabling LLM powered Kennis Al search assistant with a goal of reducing  $5 \sim 10$  % of overall Philips customer care workload..

### Generative AI Products and Platforms for Data Analytics, Healthcare and ESG Domain (Tredence Inc.)

Research, design, develop and build various GenAl LLM base products and services in the following domain.

- Trends Copilot for retailers and CPG domain powered by finetune Llama 3 8B modal using multi LORA adaptor.
- YODAI Your Own data analysis intellect. Utilize Multi agents
  LLM framework to develop and automate various retail, CPG &
  SCM data analysis workflows
- Data Whizz. Utilize agent framework to generate & execute SQL (py queries for quick insight of DB
- Healthcare Differential DX and Prior Auth .
- ESG (Environment, Social and Governance) reporting

# KPI Early Warning System using time series forecasting (Parallel Wireless)

 Created an LSTM autoencoder based Anomaly detection model to predict the outlier occurrence of KPIs with 70% accuracy; optimized run-time of model with PCA dimensionality reduction

# Cell Auto configuration using Deep Reinforcement Learning (Parallel Wireless)

Cell Auto configuration uses a deep reinforcement learning model to optimize the "tilt" and "power" settings of a cell ENodeB. Develop RLOps pipeline and integrate it with ns3 simulator (digital twin) and OpenRAN systems.