Sai Sushanth Varma Kalidindi

sushanth.kalidindi@gmail.com

079 345 6879

Örebro, Sweden 70235

PROFESSIONAL SUMMARY

Machine learning specialist with 5+ years of experience developing AI solutions for energy and medical applications. Currently concluding an Industrial PhD centered on developing and integrating deep learning regression models for Residential buildings. Strong expertise in machine learning, deep learning, and reinforcement learning, and capability in large-scale system optimization. Proven ability to transform cutting-edge research into practical industry solutions with measurable results.

SKILLS

- AWS
- GCP
- Python
- Machine Learning
- Deep Learning
- CNN, NLP, NN
- Regression
- Classification
- Computer vision
- Transformers
- TensorFlow, Keras
- PyTorch
- Reinforcement Learning
- GenAI
- MLOps
- Data analysis
- Data Mining
- Statistical Modelling
- Algorithm Development
- Quantitative Analysis
- Qualitative Analysis
- Git
- SQL, NoSQL
- Experimental Design
- Scientific Writing

WORK EXPERIENCE

AI Research Developer – **EcoGuard AB**
Örebro, Sweden. *05/2021 - Present*

- Developed context-aware transformer models for indoor temperature prediction in residential buildings, reducing prediction error by 40%.
- Implemented hybrid deep learning-reinforcement learning architecture for district heating optimization, achieving up to 20% energy savings.
- Designed adaptive context embedding system for building-specific thermal modelling across 148+ buildings in Sweden and Finland.
- Created Deep Q-Network (DQN) control system with safety constraints for real-time heat distribution management.
- Led big data analysis and classification of 40,000+ residential buildings to optimize energy consumption patterns.
- Contact: *Hans Klarsson, hans.karlsson@ecoguard.se*

Inovotech Consulting - Machine Learning Engineer
Gothenburg, Västra Götaland County *12/2020 – 04/2021*

- Developed a Web scraping algorithm with selenium and ML to provide the list of jobs with classification to the HR team.
- Data extraction and analysis from the lists with Deep-learning methods (OCR, NER, Tensor flow).

Master Thesis – **Hemocue AB**
Angelholm, Sweden, Skåne *11/2019 - 10/2020*

- Analyzing white blood cells in blood samples using deep-learning techniques.

- Microsoft Office

LANGUAGES

- English - Professional level
- Swedish - Beginner level

ORGANIZATIONS

- VARAHA RACING
  - Former team lead
- Emobil
  - Technical lead

Reference - https://emobil.in/

INTERESTS

- Badminton
- Building RC cars
- IoT Projects
- Cooking

PUBLICATION REFERENCE

Published work ref

SOCIAL CONTACT

Linkedin

X

- Achieved higher accuracy about (95%) in detecting cells by novel approaches (CNN-LSTM, Segmentation models).
- Contact: Tomas.JonassonBjarang@hemocue.se

Varaha Racing - Software Development Engineer
Visakhapatnam, Andhra Pradesh *07/2017 - 07/2018*

- Coordinated with CAN bus systems to evaluate and improve software and hardware interfaces for an electric ATV.
- Created electrical schematics using AutoCA Electrical software.

EDUCATION

Industrial PhD in Artificial Intelligence - Örebro University
Örebro 05/2021 – 05/2025
Research Focus: Deep learning and Reinforcement Learning applications for energy optimization in residential buildings.

- Developed novel algorithms combining transformer models with contextual embeddings for temperature prediction.
- Developed and Implemented hybrid transformer-DQN architecture for optimized heat distribution in residential buildings.
- Key publications in AAAI, ECAI, and Building and Environment journals.

Halmstad University
Halmstad 09/2018 - 11/2020

Masters in Embedded and Intelligent Systems

- AI Poker Agent - Designed and Implemented a reflex agent to play poker games using Python. Which learns behavior of the other players and adapts accordingly.
- Platooning- ROS (Operating system) - Building robots which can communicate between them and drive in formation. Autonomous robot with lane detection and object identification.
- Bio- Imitation (OpenCV) - Built a robot to mimic the motion of shrimp using OpenCV, C and python to drive the robot.
- Machine Learning - (Regression & Classification) - Predicting the valve parameters to control the valve opening for the EKA chemicals

Gandhi Institute of Technology & Management (GITAM) University
Andhra Pradesh, India 04/2014 - 04/2018
Bachelors: Electronics and Communications
Digital electronics, Digital communications, Data structures, Mechatronics, Microprocessors, Signals and systems, C, C++ and Java