

# PRAVEEN Chittem



## PROFILE

Innovative and passionate **AI Software Developer** with 4 years of experience in Computer Vision, Machine Learning, and Large Language Models. Strong background in data analysis, algorithm development, and market trends. Expertise in crafting scalable Python applications and implementing optimized algorithms for enhanced performance. Proven problem-solving skills and passion for staying current with industry developments.

## CONTACT DETAILS

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Taipei, Taiwan.

## SKILLS

**Programming Languages:** Python, C++, SQL

**Tools:** Docker, Kubernetes, AWS SageMaker, AWS EC2

**Frameworks:** TensorFlow, Keras, PyTorch

**Technologies:** Machine Learning, Deep Learning, LLMs, OpenVino, TensorRT

**Soft Skills:** Communication, Team Collaboration

## EXPERIENCE

SR. AI SOFTWARE DEVELOPER at ViewSonic (Taiwan). **2022.03-pres.**

### ◆ Sketch-shape and Text Recognition

Trained an object detection model using PyTorch that detects hand-drawn sketches and text on a digital whiteboard, achieving an mAP of 0.62.

### ◆ Sharepoint to HTML Automation

Developed a Python script to read data from SharePoint and convert tables into HTML code. *Skills: Python, HTML, Automation*

### ◆ Multi-lingual Overview of Post-it Notes

Fine-tuned a 600M parameter model, achieving comparable accuracy to GPT-4o at twice the speed. *Skills: FastAPI, NLP, Model Fine-tuning*

### ◆ Setup Hadoop and Kubernetes Cluster

Created local Kubernetes and Hadoop clusters utilizing SSDs and GPU resources. *Skills: Kubernetes, Hadoop, GPU Computing*

### ◆ AI Writer

Developed a template using Gradio and Streamlit integrating APIs like Gemini and OpenAI. *Skills: Gradio, Streamlit, API Integration*

### ◆ Vector-search based Knowledge Base Chatbot

Developed "Talk to Database" software using natural language processing to provide fast and accurate answers to user queries, enhancing user interaction with databases.

### ◆ Extraction of Face Embeddings from Distillation

Distilled the DinoV2 model into a smaller model called regnet800 for facial expression classification. *Skills: Model Distillation, Facial Recognition*

### ◆ Speech to Sign-language Translation

Utilized OpenAI's Whisper model for audio-to-text conversion and C++ OpenCV library for ASL gesture display. *Skills: Whisper, OpenCV, ASL*

### ◆ Pose Classification

Developed a model using Lie Algebraic transformations for pose prediction with 80% accuracy. *Skills: Pose Estimation, ONNX*

### ◆ Eye-Status Estimation

Created a heat map-based detection model for eye status estimation with 85% accuracy. *Skills: OpenVino, C++*

AI SOFTWARE DEVELOPER at Neurelli (Taiwan) **2020.08-2022.03**

◆ License Plate Recognition using Edge computing.

◆ LCD Panel Defect Detection using Unsupervised learning.

◆ Optimizing Manufacturing Precision: Machine Learning Solutions for Casting Melting Process and Spindle Assembly with 85% Accuracy

## EDUCATION

MASTER IN ELECTRICAL ENGINEERING AND COMPUTER SCIENCE *National Taipei University of Technology, Taiwan.* **2018-2020**

◆ Thesis title: GPU Acceleration of Flooding Simulation Project Using High-Performance Computing.

BACHELOR OF TECHNOLOGY IN ELECTRONICS AND COMMUNICATION ENGINEERING. *VelTech University.* **2014-2018**

◆ Thesis title: Deep learning YOLO V2 approach to real-time pedestrian detection based on GPU Embedded system.