

# Yudhvir Singh

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## Experience

**8Flow AI** - 2 months

**AI/ML Engineer**, 8Flow AI, Oct 2024 - Present

- Analyzed and processed time series data of millions of customer records
- Deployed open source LLMs for processing sensitive customer data

**Kipo AI** - 1 year

**Founding AI/ML Engineer**, Nov 2023 - Oct 2024

- Setup the AI/ML infrastructure for data collection, ETL, training and deploying AI/ML models
- Designed and implemented LLM, NLP and vision models to extract the important data from the documents
- Designed and implemented data pipelines for both AI/ML and software development
- Optimizing and fine-tuning LLMs to enhance performance and efficiency to reduce latency and cost
- Worked with the team in India to delegate the data collection and evaluation tasks for AI/ML models
- Worked on multiple paid POC's for customers (2 end-to-end and parts of many others)
- Participated in multiple customer meetings, understanding their goals and adapt product accordingly

**Uniquify** - 4 years 8 months

**Senior AI/ML Engineer**, Sep 2021 - Oct 2023

- Collaborated closely with cross-functional teams to understand business requirements, translate them into technical specifications, and deliver AI solutions
- Led the development and implementation of AI models for a range of projects including autolabeling, deep-fakes, chatbots, speech recognition, text-to-speech, object detection, object tracking, defect detection
- Mentored and provided guidance to junior team members, helping them grow and develop in AI engineering
- Setup and deploy AI/ML models on local servers.
- Use LLMs with chatbots to develop custom solutions and easy user interactions

**AI/ML Engineer**, Oct 2019 - Aug 2021

- Conducted extensive research and analysis to identify appropriate AI algorithms and techniques for each project, resulting in improved accuracy and efficiency
- Optimized existing AI models, reducing computational costs by 10-25% and improving performance by 5-10%
- Improve existing AI models by implementing new algorithms and optimizing hyperparameters

**AI Engineer Intern**, Apr 2019 - Aug 2019

- Assisted in conducting research on AI algorithms and methodologies, contributing to the development of innovative solutions
- Implemented and tested various machine learning algorithms, evaluating their performance and optimizing hyperparameters

**BSNL** - 1 year

**Junior Software Engineer**, Jan 2016 - Nov 2016

- Collaborated with senior developers on a team to design and implement new features for a web application
- Conducted code reviews, offering constructive feedback to improve code quality

## Education

**M.S in Computer Engineering**, San Jose State University

Aug 2019

**B.Tech in Electronics & Communication Engineering**, DAVIET

May 2016

## Certifications

- **LangChain with Python Bootcamp**: Udemy link
- **Natural Language Processing with Python**: Udemy link
- **Complete Python Bootcamp**: Udemy link
- **Deep Learning: Advanced Computer Vision(GANs, SSD, +More!)**: Udemy link
- **Deep Learning and Computer Vision A-Z: OpenCV, SSD & GANs**: Udemy link
- **Python for Computer Vision with OpenCV and Deep Learning**: Udemy link
- **PyTorch for Deep Learning with Python Bootcamp**: Udemy link
- **Tensorflow 2 and Keras Deep Learning Bootcamp**: Udemy link

- **Python for Data Science and Machine Learning Bootcamp:** Udemy link

## Technical Skills

- **Programming languages:** Python, C++ (worked in past)
- **Computer Science:** Data Structures, OOP, System Design, Statistics, Probability
- **Deep Learning Frameworks:** Tensorflow, PyTorch
- **AI libraries:** Langchain, Huggingface, Numpy, Scipy, Pandas, Matplotlib, Spacy, NLTK
- **Computer Vision:** Classification, Object Detection and Tracking, Face Detection and Recognition, Segmentation, Deepfakes
- **Natural Language Processing:** LLM, Bert, Transformers, Chatbots, Sentiment Analysis, Spam Classification, Sentence Autocomplete
- **Web development:** Flask, HTML/CSS
- **Databases:** MySQL, Mariadb
- **Other:** Dockers, Amazon Web Services(AWS), Linux, Git, Shell scripting,  $\LaTeX$ , Markdown, Sphinx

## Projects

- Detect tiny defects in soc chips using multiple computer vision algorithms
- Developed Deepfakes using generative models like autoencoders and GAN's
- Fingerprint recognition using conventional and ai algorithms
- Developed chatbot using generative NLP
- Implemented JPEG and JPEG2000 in python and achieved same quality and compression to adobe photoshop
- Use Fourier Transform on raw input data to improve ai models performance

## Personal Skills

- Leadership skills, Strong communication, Highly motivated and eager to learn new things, Ability to work as and individual as well as in a group, Strong debugging and problem solving skills