

ABHINAV JINDAL

🏠 1204 W Adams Blvd, Los Angeles, California 📞 213-561-9784

🌐 abhinavjindl.github.io ✉ jindalab@usc.edu 🔗 linkedin.com/in/AbhinavJindl 🐙 github.com/AbhinavJindl

Education

University of Southern California

Aug. 2022 – May 2024

Master of Science (Honors), Computer Science (CGPA: 4.0/4.0)

Los Angeles, California

- **Courses:** Analysis of Algorithms, Database Systems, Applied Natural Language Processing, Machine Learning for Data Science, Web Technologies, Game Development.

Indian Institute of Technology (IIT)

July 2016 – May 2020

Bachelor of Technology, Computer Science and Engineering (CGPA: 9.05/10)

Ropar, India

- **Courses:** Computer Vision, Artificial Intelligence, Machine Learning, Multimedia Systems, Image Analysis, Data Structures, Algorithms, Databases, Operating Systems, Computer Networks, Probability Theory, Linear Algebra.

Experience

Intel

May 2023 – Present

Graduate Software Engineer Intern/Co-op

Santa Clara, California

- Optimized the speed and prevented future regressions of the cobalt simulation graphics testing module.
- Analyzed the code-base using VTune to identify and address bottlenecks, resulting in a 300% boost in CPU frequencies.

USC Information Sciences Institute

Oct. 2022 – Present

Software Engineer

Los Angeles, California

- Pioneered the Faiss Knowledge Store for efficient retrieval of pertinent SBERT-embedded documents.
- Implemented various APIs based on Elastic-Search indexes, prompt-based GPT queries and caching mechanisms.

D.E. Shaw (Schrödinger)

June 2020 – August 2022

Software Developer 1

Hyderabad, India

- Developed data pre-processing, computational and visualization tools to accelerate drug discovery and material science.
- Directed Admin Panel's React transition and containerization, enhancing tech-stack and development experience.
- Revamped the LDL service pipeline using Docker and Jenkins for seamless interaction between the LD and ML models.

Linkbal

May 2019 – July 2019

Data Science Intern

Tokyo, Japan

- Constructed *Event Cancellation Prediction* models using CatBoost and neural networks to refine ranking of events achieving 92% accuracy.

Technical Skills

Languages: Python, Java, C/C++, JavaScript, TypeScript, Docker, PHP, HTML/CSS, PostgreSQL

Frameworks: Django, React, Flask, Keras, PyTorch, OpenCV, Scikit-learn, ElasticSearch, Faiss, Kubernetes

Developer Tools: Jenkins, VTune, Jupyter Notebook, Colab, MatLab, L^AT_EX, git, Visual Studio, PyCharm

Projects

Formality Transfer and Offensive Language Mitigation | Python, OpenAI GPT, LLM, NLP

May 2023

- Executed fine-tuning of the OpenAI Large Language Model (LLM), GPT-3, using a specialized dataset to metamorphose sentences into a polished and considerate formal structure.
- Introduced a proprietary 500 instances dataset, attaining fluency and performance on par with humans.

Medical Segmentation Decathlon | Python, PyTorch, Keras, Computer Vision

April 2020

- Innovated in modeling single 3D segmentation across different tasks and adapting to unseen tasks without annotations.
- Trained U-NET FCN-based model along with 3D image processing techniques, attaining Dice scores surpassing 90%.

Multi-Modal Learning for Audio-Video Compatibility | Python, scikit-learn, Computer Vision

December 2019

- Pioneered an approach for forecasting the compatibility order of YouTube videos to audio to predict similarity scores.
- Extracted a myriad of features encompassing emotions, transitions, beats, and pace from audio and videos.

Honors and Awards

Admitted in the USC MSCS **Honors** for maintaining perfect grade.

Merit Scholarship at IIT Ropar for securing an **AIR-1343 (99.91 percentile)** in IIT-JEE exam and **State Topper** in JEE Mains.