# Jeet Kanjani

Website LinkedIn Github

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## Education

- **Carnegie Mellon University - School of Computer Science** — Pittsburgh, PA
  *Master of Science in Computer Vision (MSCV)* — *starting Jan. 2021 - May. 2022*
- **The LNM Institute of Information Technology** — Jaipur, India
  *Bachelor of Engineering in Computer Science; (7.53/10.0)* — *Jun. 2014 – Apr. 2018*

## Experience

- **Oxehealth Ltd** — Oxford, UK
  *Research Engineer, Graduate Research Engineer* — *Aug 2018 - Present*
  - **Research**: Improved predictive models for *Person tracking, *Fallen Person Detection, *Person on Edge of Bed detection, Sleep Staging from monocular videos. *Improved the risk of falls by **48%**[link] ***(*-major contributor)***
  - **Development**: Designed and developed C++ based deep learning model serving architecture using GRPC services. Switched inference hardware to Coral TPU reducing inference time by 32% and deployment cost by 10X.
  - **Industrialize**: Supervised 3 interns to build active learning annotation tools to reduce time to production. Built an evaluation framework in python for ML regression testing, model versioning used across teams.
- **Tonbo Imaging** — Bangalore, India
  *Research Intern* — *Jan 2018 - April 2018*
  - **Research**: Addressed the issue of long term tracking of objects in thermal infrared videos for object tracking in videos by using fully convolutional siamese networks (SiameseFC) with LSTMs.
  - **Development**: Implemented CUDA version of existing Centroid Object Tracking and Moving Target Indication Algorithms used in the night vision cameras. Achieved speedups of more than 100x over CPU.
- **University of Oxford** — Oxford, UK
  *Research Intern* — *May 2017 - Sept. 2017*
  - **Research**: Worked with a DPhil student at **Torr Vision Group** on 3D Pose Estimation from Monocular images using structured learning approaches.
  - Improved on previously built 2D Pose Estimator which is ranked 5th on the MPII dataset using CRF as RNN. [Link]
  - **Development**: QuickHOG: Contributed a CUDA implementation of HOG-SVM based Pedestrian Detection to the OxSight glasses used by the visually impaired.
  - Engineered an end-to-end detection pipeline on GPU to bring latency down to 12ms(80X running time improvement over sequential implementation) with no loss in accuracy. [Link]

## Key Projects

- **Meta Learning in distinct domains(ongoing)**: Investigating ways to improve meta learning algorithms in a few shot learning setting where source and target domains are distinct. [Link]
- **Sight, a fifth sense belt for the visually impaired**: Implemented online obstacle detection on Kinect's depth stream to assist the visually impaired. Developed Indian gesture recognition capability on Kinect Pose.
  Won a state level Hackathon(LNMHacks) and conducted product trials at local blind association with this project. [Link]

## Technical Skills

- **Programming Languages**: : C, **C++**, **Python**, Java(familiar)
- **Tools**: **Tensorflow**, Keras, Caffe, **CUDA**, AWS, **Pyspark**, Flask, **Pandas**, SQL, Unity3D

## Relevant Courses

Computer Vision*, Math Fundamentals for Robotics*, Intro to Machine Learning*, CUDA programming summer course at Oxford, CS231n, Probabilistic Graphical Models by Daphne Koller, deeplearning.ai course by Andrew Ng, Data Structures and Algorithms ***(*-ongoing)***

## Achievements

• Financial support for my research intern at the University of Oxford awarded based on performance • Stood 2nd among 45 teams in State level Hackathon held in Rajasthan • Stood 2nd at college level in ACM IUPC, a world level Prog. Contest organized during LNMIIT Tech fest