

Jeet Kanjani

Website LinkedIn Github

Seeking computer vision internship for Summer 2021

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EDUCATION

- **Carnegie Mellon University - School of Computer Science** Pittsburgh, PA
Master of Science in Computer Vision (commencing Spring'21, CPT eligible) 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, Research Intern May 2018 - Dec. 2020
 - **Research:** Significantly contributed towards predictive models for Person tracking, Fallen Person Detection, Person on Edge of Bed detection and Sleep Staging from video thereby improving the risk of patient falling from 33% to **48%**. [Link]
 - Achieved a 22% improvement in YOLOv3 mAP on the Oxehealth dataset by adding a stream of Optical flow to its backbone.
 - **Development:** Developed and maintained a 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 pyspark for regression testing which is extensively used across teams.
 - **Achievement:** Among 2 out of 45 candidates selected globally for a 6-month research internship programme at Oxehealth Ltd. Offered a full time position based on exceptional performance during the internship.
- **Tonbo Imaging** Bangalore, India
Research Intern Jan. 2018 - April 2018
 - **Research:** Addressed the issue of long term tracking of objects in thermal infrared videos by using fully convolutional siamese networks (SiameseFC) with LSTMs. Achieved a 2.9% AUC improvement on Tonbo's infrared dataset. [Link]
 - **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 using CRF as RNN. [Link]
 - **Development:** Contributed a CUDA implementation of HOG-SVM based Pedestrian Detection to the **OxSight** glasses used by the visually impaired. [Link]
- **Blink Digital** Mumbai, India
Software Development Intern May 2016 - Aug. 2016
 - Developed a Virtual Dressing application using Kinect and Unity3D. Made tracking 1.3X faster by clustering skeletal data.

KEY PROJECTS

- **QuickHOG:** end-to-end CUDA object detection pipeline based on HOG-SVM May 2017 - Sept 2017
 - **80X** run time improvement over sequential implementation and **1.2X** over state of the art parallel implementation. [Link]
 - Implemented a novel NMS by adopting a *map/reduce* parallelization pattern. [Link]
 - Deployed to OxSight AR glasses. [Link]
- **Sight:** a fifth sense belt for the visually impaired Jan. 2017 - April 2017
 - Implemented online obstacle detection using graph cuts on Kinect's depth stream with audio and haptic feedback. [Link]
 - Integrated Indian gesture recognition capability using key frame extraction method.
 - Won a state level Hackathon(LNMHacks) and conducted product trials at a renowned blind people association. [Link]

TECHNICAL SKILLS

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

RELEVANT COURSES

Computer Vision, CMU*, Math Fundamentals for Robotics, CMU*, Intro to Machine Learning, CMU*, CUDA programming summer course at Oxford, CS231n, Probabilistic Graphical Models by Daphne Koller, deeplearning.ai course by Andrew Ng, Data Structures and Algorithms (*-Spring'21)

OTHER ACHIEVEMENTS

- Stood 2nd among 70+ teams in State level Hackathon held in Rajasthan.
- Stood 2nd at college level in ACM IUPC, an international programming contest organized during LNMIIT's technical fest.