

BHARTI MUNJAL

EDUCATION

PhD Candidate	January 2018 - Present Technical University of Munich, OSRAM GmbH Germany Current Research Topics: Detection, Re-Identification, Person Search, Long Term Tracking
MSc. in Informatics	October 2014 - March 2017 Technical University of Munich, Germany
BTech. in Information Technology	July 2007 - May 2011 National Institute of Technology Kurukshetra, India

WORK EXPERIENCE

January 2018 - Present PhD Research TU Munich & OSRAM GmbH	<ul style="list-style-type: none">● Knowledge Distillation for end-to-end Person Search (BMVC 2019): The multi-task objective of detection and identification is relaxed by transferring one task to a teacher.● Query-guided end-to-end Person Search (CVPR 2019): Extensive query guidance at multiple levels (global and local) using a siamese network.● Long Term Tracking of cars using joint detection, prediction and re-identification.
June 2016- February 2017 Master's Thesis TU Munich	<ul style="list-style-type: none">● Object Detection with Fully Convolutional Neural Network using per pixel semantic segmentation together with offset to the center of object and object size regression. github.com/ObjctDetection
June 2015 - June 2016 Academic Projects TU Munich	<ul style="list-style-type: none">● Cancer Metastasis Detection in Lymph Node Sections: Built an ensemble of networks using multiple scales of histopathology images for metastasis detection. Participated in ISBI Camelyon Challenge 2016 http://camelyon16.grand-challenge.org/home/.● West Nile Virus Prediction using handcrafted features and machine learning models. Participated in Kaggle Competition 2015.● Vision Based Target Navigation of Quadcopter using epipolar geometry.● A web application for banking built on phpSec framework with focus on security from attacks like CSRF, XSS and other vulnerabilities suggested by OWASP. The application uses Smart Card Simulator to generate authentication numbers to enhance security in transactions.
February 2014 - August 2014 Senior Software Developer Snapdeal, E-commerce, India	<ul style="list-style-type: none">● Search Engine Optimisation: Adapted e-commerce website (snapdeal.com) to conform to SEO guidelines to enhance the site's ranking in google search results.
June 2011 - December 2014 Software Developer Drishti-Soft Contact Center Solutions Provider, India	<ul style="list-style-type: none">● AmeyoChat: Built a user behaviour dependent chat application using Java, Postgres, Hibernate and Google Web Toolkit (GWT).● DNCIndia.com: Built the complete website (backend and frontend) using Java and GWT.● Lead a team of 3 to adapt Ameyo (Contact Center solutions product suite) architecture to incorporate Internationalization.

SOFTWARE SKILLS

- Languages: Python, Matlab, Java, C++
- Frameworks: Pytorch, Tensorflow, Caffe

SELECTED PUBLICATIONS

- "Query-guided End-to-End Person Search"
Bharti Munjal, Sikandar Amin, Federico Tombari, Fabio Galasso (CVPR 2019: IEEE Conference on Computer Vision & Pattern Recognition, Long Beach, USA, June 2019)
- "Knowledge Distillation for End-to-End Person Search"
Bharti Munjal, Fabio Galasso, Sikandar Amin (BMVC 2019: 30th British Machine Vision Conference, Cardiff, UK, Sep. 2019)

PATENTS

- "Joint Detection and Tracking of Multiple Objects with Identification Feature Learning". Filed: 09/2018
- "Query-Guided End-to-End Object Search". Filed: 04/2019
- "Knowledge Distillation for End-to-End Object Search". Filed: 08/2019

ACHIEVEMENTS AND POSITION OF RESPONSIBILITY

- Awarded Deutschlandstipendium by Technical University of Munich consecutively for 2 years (2014-2016)
- Scored approx. 99th percentile (State Rank 264) in Bachelor's degree entrance examination (AIEEE-2007). Based on my rank, I got admission into National Institute of Technology Kurukshetra (NITK)
- Awarded one time scholarship (INR 7500) for third Position in Karnal District among more than 10000 students (2005)
- Volunteer Member of "Indian Youth Forum", NGO (2013-2014).
- Executive member of college club "Utopia", to teach the poor and underprivileged (2007-2008).

LANGUAGES

German (A1 Level), English, Hindi