

MEHMET KEREM TURKCAN

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SUMMARY

Postdoctoral researcher at Columbia University with research and teaching experience in deep learning and computational neuroscience seeking career opportunities. Eager to apply my scientific and computational skills to challenging unsolved problems.

EXPERIENCE

- ◊ **Columbia University**, New York, NY Nov 2022 – Present
Postdoctoral Research Scientist
 - Managed research projects on building digital twins of New York City street intersections using state-of-the-art computer vision and deep learning approaches, presenting two posters and publishing a conference paper
 - Mentored 11 Master's students in various research projects, resulting in two publications currently under review
 - Applied state-of-the-art deep learning models to robotic surgeries in a collaboration with surgeons at Northwell Health which resulted in a journal publication and a conference talk
- ◊ **Columbia University**, New York, NY Jan 2023 – Dec 2023
Lecturer
 - Taught two full semester courses: ECBM E4040: Deep Learning&Neural Networks (82 Students) and EECS E6691: Advanced Deep Learning (41 Students), preparing lectures, course material and assignments
- ◊ **Columbia University**, New York, NY Jan 2017 – Oct 2022
Graduate Research Assistant
 - Published research on application of machine learning techniques and development of massive multi-GPU simulations for nanometer-scale neuroscience datasets in two peer-reviewed scholarly journal articles and presented research posters at four conferences
 - Gave research talks in Princeton University, UC Davis and Max Planck Institute for Biological Intelligence
 - Managed and mentored seven undergraduate researchers as part of open source code development projects related to research
- ◊ **Columbia University**, New York, NY Sep 2017 – Jun 2018
Course/Teaching Assistant
 - Designed interactive lecture notebooks and assignments for courses on deep learning and computational neuroscience

EDUCATION

- ◊ **Columbia University**, New York, NY Oct 2022
 - Ph.D. in Electrical Engineering
 - Cumulative GPA: 4.10/4.33
 - *Relevant Coursework:* Foundations of Graphical Models, Autonomous Multi-Agent Systems, Sparse Representation and High-Dimensional Geometry, Neural Control Engineering
- ◊ **Columbia University**, New York, NY Dec 2016
 - M.Sc. in Computer Science, Machine Learning/Thesis Track
 - Cumulative GPA: 3.97/4.33
 - *Relevant Coursework:* Advanced Machine Learning, Bayesian Methods in Machine Learning, Neural Networks and Deep Learning, Computer Graphics, Programming Languages and Translators, Analysis of Algorithms I
- ◊ **Istanbul Technical University**, Turkey Jun 2015
 - B.Sc. in Electronics and Communication Engineering
 - Cumulative GPA: 3.75/4.00
 - *Relevant Coursework:* Image Processing, Wireless Communication Networks, Data Communications, Digital Signal Processing Design and Applications

TALKS&LECTURES

- ◊ *Optimizing Computer Vision In Surgery Workflows Through Transfer Learning*, ACS Clinical Congress Oct 2023
- ◊ *FlyBrainLab: An Interactive Open Computing Platform*, PyData Global Nov 2020
- ◊ *Drosophila Neurobiology: Genes, Circuits&Behavior*, Cold Spring Harbor Laboratory Jul 2018

SKILLS

- ◊ **Programming Languages:** Python, C/C++, MATLAB, OpenGL, Typescript, Javascript, HTML, CSS
- ◊ **Libraries/Platforms:** CUDA, TensorFlow, Jax, PyTorch, Unreal Engine
- ◊ **Design Software:** LaTeX, Photoshop, Illustrator, InDesign