

# JAYANTH KOUSHIK

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## EDUCATION

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### PhD in Neural Computation and Machine Learning

Jul 2017 – Dec 2023

CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PA

Advisors: Michael J. Tarr, Aarti Singh

Thesis: *Rethinking Object Categorization in Computer Vision*

Awards:

- ◇ BrainHub Presidential Fellowship (2018)

### MS in Computational Data Science

Sep 2015 – May 2017

CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PA

Advisor: Aarti Singh

### BE (Hons.) in Computer Science

Aug 2010 – Jul 2014

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI, INDIA

Awards:

- ◇ Merit Scholarship (Fall 2010, Spring 2011)
- ◇ OP Jindal Engineering and Management Scholarship (2010, 2012)

## WORK EXPERIENCE

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### Postdoctoral Researcher

Jan 2024 –

CARNEGIE MELLON UNIVERSITY

### Teaching Assistant

“Fun”-damentals of MRI and Neuroimaging Analysis (Spring 2022)

CARNEGIE MELLON UNIVERSITY

### Teaching Assistant

Data Analysis class in Machine Learning (Fall 2018)

CARNEGIE MELLON UNIVERSITY

### Software Engineer

Jul 2014 – Jun 2015

DIRECTI, BANGALORE, INDIA

### Interim Engineering Intern

Jan 2014 – Jun 2014

QUALCOMM, BANGALORE, INDIA

## SKILLS

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◦ Python ◦ PyTorch ◦ Matplotlib, Seaborn ◦ NumPy, SciPy, Scikit-Learn ◦ HTML, CSS, JavaScript

## PRESENTATIONS

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### **Influence Functions for Black-Box Optimization**

J. KOUSHIK, A. SINGH, M. J. TARR.

Talk at *2<sup>nd</sup> Annual Conference on Machine Learning and Engineering* (MS&T 2019).

### **Influence Functions for Adaptive Stimulus Selection**

J. KOUSHIK, A. MARCUS, A. SINGH, M. J. TARR.

Poster at *18<sup>th</sup> Annual Meeting of the Vision Sciences Society* (VSS 2018).

## PUBLICATIONS AND PREPRINTS

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### **Deep learning powered real-time identification of insects using citizen science data**

S. CHIRANJEEVI, M. SADAATI, Z. K. DENG, J. KOUSHIK, T. Z. JUBERY, D. MUELLER, M. E. O'NEAL, N. MERCHANT, A. SINGH, A. K. SINGH, S. SARKAR, A. SINGH, B. GANAPATHYSUBRAMANIAN.

In preparation.

### **AlphaNet: Improving Long-Tail Classification By Combining Classifiers**

N. CHANG\*, J. KOUSHIK\*, A. SINGH, M. HEBERT, Y.-X. WANG, M. J. TARR.

arXiv:2008.07073 (2023).

### **Deep Black-Box Optimization with Influence Functions**

J. KOUSHIK, MICHAEL J. TARR, AARTI SINGH.

Preprint (2020).

### **Eve: A Gradient Based Optimization Method with Locally and Globally Adaptive Learning Rates**

H. HAYASHI\*, J. KOUSHIK\*, G. NEUBIG.

arXiv:1611.01505 (2018).

### **A Brain Phenotype for Stressor-Evoked Blood Pressure Reactivity**

P. J. GIANAROS, L. K. SHEU, F. UYAR, J. KOUSHIK, J. R. JENNINGS, T. D. WAGER, A. SINGH, T. D. VERSTYNEN.

In *Journal of the American Heart Association* (2017).

### **Hypothesis Transfer Learning via Transformation Functions**

S. S. DU, J. KOUSHIK, A. SINGH, B. PÓCZOS.

In *31<sup>st</sup> Conference on Neural Information Processing Systems* (NIPS 2017).

### **Deep Multimodal Fusion for Persuasiveness Prediction**

B. NOJAVANASGHARI\*, D. GOPINATH\*, J. KOUSHIK\*, T. BALTRUŠAITIS, L.-P. MORENCY.

In *18<sup>th</sup> International Conference on Multimodal Interaction* (ICMI 2016).

\* Equal contribution.