

Arjun Chandrasekaran

ARTIFICIAL INTELLIGENCE · MACHINE LEARNING · COMPUTER VISION · NATURAL LANGUAGE PROCESSING

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Employment

Conxai Technologies GmbH

Munich, Germany.

SENIOR AI SCIENTIST

July 2023 - Now

- Formulating and executing AI strategies that create competitive advantages and maximise value to customers.
- Architecting AI stacks to enable different use-cases in the AEC (Architecture, Engineering and Construction) industry.
- Leading an AI team of 8 members (3 full-time ML engineers and 4 interns) spread across 2 time-zones.

Max Planck Institute for Intelligent Systems

Tübingen, Germany.

POSTDOCTORAL RESEARCHER, WITH MICHAEL BLACK

Jan. 2020 - June 2023

- Modeling the semantics of human actions by correlating the movements of 3D human avatars with language descriptions.

Robert Bosch (RBEI)

Bangalore, India

ASSOCIATE SOFTWARE ENGINEER, COMPUTER VISION TEAM

Aug. 2013 - July 2014

- Testing driver assistance functions like lane detection, road sign recognition, pedestrian detection, etc. on a camera ECU.

Education

Georgia Tech

Atlanta, GA, USA

PHD IN COMPUTER SCIENCE (ADVISOR: DEVI PARIKH)

Jan. 2017 - Dec. 2019

Dissertation: Towards natural Human-AI interactions in Vision and Language

Virginia Tech (transferred to Georgia Tech)

Blacksburg, VA, USA

PHD IN COMPUTER ENGINEERING (ADVISOR: DEVI PARIKH)

Aug. 2014 - Dec. 2016

- Research on computational models for visual humor and temporal common sense.

Bangalore Institute of Technology

Bangalore, India

B. ENG. IN ELECTRONICS AND COMMUNICATION ENGINEERING

Sep. 2009 - Mar. 2013

- Design and implementation of a VLSI based video decoder based on the H.264 video encoding standard.

Visiting Positions

Indiana University

Bloomington, USA

VISITING SCHOLAR, WITH CHEN YU AND DAVID CRANDALL

Summer 2019

- Modeling child learning from parent-child interactions captured via head-mounted cameras and parent speech.

CurAI

Palo Alto, USA

RESEARCH INTERN, WITH ANITHA KANNAN

Summer 2018

- Question Answering in medical domain and Information Extraction to build a Knowledge Graph.

Facebook AI Research

Menlo Park, USA

RESEARCH INTERN, WITH DEVI PARIKH

Summer 2017

- Modeling aspects of personality from reddit data.

Toyota Technological Institute

Chicago, USA

RESEARCH INTERN, WITH MOHIT BANSAL

Summer 2016

- Modeling "temporal common sense" in everyday events, and generating witty image captions.

- Designing and testing analog circuits using the (then) newly developed Verilog AMS (Analog and Mixed Mode).

Publications

LocATe: End-to-end Localization of Actions in 3D with Transformers

ARXIV

Mar. 2022

J. Sun, B. Zhou, M. J. Black, **A. Chandrasekaran**

How Much Coffee Was Consumed During EMNLP 2019? Fermi Problems: A New Reasoning Challenge for AI

EMNLP

CONFERENCE ON EMPIRICAL METHODS IN NATURAL LANGUAGE PROCESSING

Nov. 2021

A. Kalyan, A. Kumar, **A. Chandrasekaran**, A. Sabharwal, P. Clark

BABEL: Bodies, Action and Behavior with English Labels

CVPR

IEEE/CVF CONFERENCE ON COMPUTER VISION AND PATTERN RECOGNITION

June 2021

A. R. Punnakal*, **A. Chandrasekaran***, N. Athanasiou, A. Quiros-Ramirez, M. J. Black

Active domain adaptation via clustering uncertainty-weighted embeddings

ICCV

IEEE/CVF INTERNATIONAL CONFERENCE ON COMPUTER VISION

Oct. 2021

V. Prabhu, **A. Chandrasekaran**, K. Saenko, J. Hoffman

A computational model of early word learning from the infant's point of view

CogSci

ANNUAL CONFERENCE OF THE COGNITIVE SCIENCE SOCIETY

July 2020

S. Tsutsui, **A. Chandrasekaran**, M. A. Reza, D. Crandall, C. Yu

Do explanation modalities make VQA models more predictable to a human?

EMNLP

CONFERENCE ON EMPIRICAL METHODS IN NATURAL LANGUAGE PROCESSING

Nov. 2018

A. Chandrasekaran*, V. Prabhu*, D. Yadav*, P. Chattopadhyay*, D. Parikh

Punny Captions: Witty Wordplay in Image Descriptions

NAACL

NORTH AMERICAN CHAPTER OF THE ASSOCIATION FOR COMPUTATIONAL LINGUISTICS

June 2018

A. Chandrasekaran, D. Parikh, M. Bansal

It takes Two to Tango: Towards Theory of AI's Mind

CVPR Workshop

CHALEARN LOOKING AT PEOPLE WORKSHOP, CVPR

Apr. 2017

A. Chandrasekaran*, D. Yadav*, P. Chattopadhyay*, V. Prabhu*, D. Parikh

Evaluating Visual Conversational Agents via Cooperative Human-AI Games

HCOMP

CONFERENCE ON HUMAN COMPUTATION AND CROWDSOURCING

Oct. 2017

P. Chattopadhyay, D. Yadav, V. Prabhu, **A. Chandrasekaran**, A. Das, S. Lee, D. Batra, D. Parikh

SortStory: Sorting Jumbled Images and Captions into Stories

EMNLP

EMPIRICAL METHODS IN NATURAL LANGUAGE PROCESSING

Nov. 2016

H. Agrawal*, **A. Chandrasekaran***, D. Batra, D. Parikh, M. Bansal

We Are Humor Beings: Understanding and Predicting Visual Humor

CVPR

IEEE CONFERENCE ON COMPUTER VISION AND PATTERN RECOGNITION

July 2016

A. Chandrasekaran, A. K. Vijayakumar, S. Antol, M. Bansal, D. Batra, C. L. Zitnick, D. Parikh

* Denotes equal contribution.

Skills

Programming	Python (Pandas, PyTorch, NumPy, Scikit-learn), Matlab, C/C++, HTML/CSS, JavaScript.
Miscellaneous	Linux, Git, LaTeX, Microsoft Office.
Soft Skills	Time Management, Teamwork, Problem-solving, Documentation, Presentation.
Languages	English, Hindi, Tamil, Kannada.

Awards

- 2021 **Outstanding reviewer**, Computer Vision and Pattern Recognition (CVPR).
2018 **Outstanding reviewer**, Neural Information Processing Systems (NeurIPS).

*Virtual conference
Montreal, Canada*

Talks

- 'Grounding language in 3D human movement', Amazon AWS (remote talk). 2022.
- 'Grounding language in 3D human movement', NEON, Samsung Research America (remote talk). 2022.
- 'Multi-modal computational humor', (virtual) meeting on Computational Humor, Amazon. 2022.
- 'Talk & Talk' seminar series at MPI for Intelligent Systems, Tübingen, Germany (remote talk). 2021.
- Mercedes-Daimler Research, Bangalore, India (remote talk). 2021.
- Perceiving Systems Dept. at MPI for Intelligent Systems, Tübingen, Germany. 2019.
- Dept. of Psychological and Brain Sciences, Indiana University, Bloomington, USA. 2019.
- Laboratory of Sensorimotor Research, National Institutes for Health (NIH), Bethesda, USA. 2019.
- Invited talk at the 'Vision and Language' course at Georgia Tech, Atlanta, USA. 2018.
- Institute for Critical Technology and Applied Science (ICTAS) seminar series at Virginia Tech, Blacksburg, USA. 2017.
- Mid-Atlantic Computer Vision (MACV) Workshop at Johns Hopkins University, Baltimore, USA. 2017.
- CVPR Spotlight talk (on Visual Humor) at Las Vegas, USA. 2016.

Reviewing

- **2022** CVPR, ICRA, ECCV, NeurIPS
- **2021** CVPR, NeurIPS, AAAI
- **2020** ICRA, CogSci, ECCV, NeurIPS
- **2019** ICML, NAACL, NCVPRIPG (India)
- **2018** CVPR, ICML, TPAMI
- **2017** CVPR, NIPS

Advising

Current

- Darsh Kaushik. Intern (B. Tech. at NIT Silchar, India).
- Leyre Sánchez Viñuela. Intern (MA in Computational Linguistics at University of Tübingen).

Past

- Jiankai Sun. Intern (MS at Chinese University of Hong Kong → PhD at Stanford University).
- Taylor McConnell. Intern (MA in Computational Linguistics at University of Tübingen → MPI for Intelligent Systems).
- Mayank Lunayach. Intern (B. Tech. at IIT Kanpur, India → MS at Georgia Tech).

Teaching

CS 4476: Introduction to Computer Vision.

HEAD TEACHING ASSISTANT. INSTRUCTOR: DEVI PARIKH.

*Georgia Tech
Fall 2018*

CS 8803: Computer Vision and Language

TEACHING ASSISTANT. INSTRUCTOR: DEVI PARIKH.

*Georgia Tech
Fall 2017*