

Jay Kejriwal

kejriwal.jay@gmail.com / <https://github.com/jaykejriwal>

EDUCATION

Slovak Technical University- Bratislava, Slovakia

Ph.D. Applied Informatics (Computer Science)

Oct 2020 – June 2024

Advisor: Stefan Benus

Thesis Title: Conversation coordination in human-machine communication

Eberhard Karls University of Tübingen- Tübingen, Germany

M.A. Computational linguistics

March 2018 – Nov 2019

Advisor: R. Harald Baayen

Thesis Title: Inflectional Morphology using LDL in Hindi

Maharshi Dayanand University- Rohtak, India

B. Tech. Computer Science

May 2009 – May 2012

RESEARCH AND INDUSTRY EXPERIENCE (FULL-TIME)

Senior IT Consultant

April 2016 – March 2017

Incredible Advisory Services Pvt. Ltd, New Delhi, INDIA

Working on real-time financial software for stock trading and debugging the issues

IT Consultant

June 2012 – March 2016

National Engineering Corporation, Mumbai, India

Worked on the projects associated with surveillance technology. Designed system architecture for installing CCTV cameras. Provided chip-level solutions for embedded systems.

RESEARCH AND INDUSTRY EXPERIENCE (INTERNSHIPS)

Student Researcher

March 2022 – July 2022

Orange Labs, Lannion, France

Mentor: Lina Rojas Barahona

Designed and trained DNN models for the prediction of entrainment in spoken conversations.

Research Assistant

March 2019 – April 2019

University of Tübingen, Germany

Mentor: R. Harald Baayen

Research and development using a discriminative learning framework. Named entity extraction from corpora for a range of languages. Pattern analysis using Python with NLP libraries.

TEACHING EXPERIENCE

- Teaching Assistant, Human-Computer Interaction, Slovak Technical University

Fall 2021

- Teaching Assistant, Phonetics and Phonology, University of Tübingen

Fall 2019

SKILLS

- Fluent programming languages: Python and R
- Familiar programming languages: C, C++, Java, SQL, and Kotlin
- Web technologies: Java script, HTML/CSS, and Flask
- DNN Framework: Pytorch and Tensorflow
- Others: UNIX, Git and NLP tools

WORKSHOPS AND INVITED TALK

- Attended various workshops organized by **Conversational Brains** (COBRA) in Bratislava, Edinburgh, Berlin, Ferrara, and Louvain
- Created an interaction scenario for the Furhat robot, which was showcased at the European Research Night (2024) in Bratislava
- J. Kejriwal (2024, June). Alignment in HHI and HRI. Max Planck Institute for Psycholinguistics, Netherlands

AWARDS

- Marie Skłodowska-Curie PhD fellowship under Innovative Training Network named **Conversational Brains** (COBRA) [Link](#) 2020- 2024
- DAAD scholarship for outstanding performance, University of Tübingen 2019
- Merit scholarship for being in top 1% of the class, Maharshi Dayanand University, Rohtak 2012

PUBLICATIONS

Conference and Journal Papers

- Stress detection using non-semantic speech representation
J. Kejriwal, Š. Beňuš and M. Trnka
32nd International Conference Radioelektronika, Kosice, Slovakia, 2022, pp. 1-5, [Link](#)
- Speech Entrainment and Emotion
J. Kejriwal and Š. Beňuš
14th IEEE International Conference on Cognitive Infocommunications, Budapest, Hungary, 2023, pp. 99-104, [Link](#)
- Unsupervised Auditory and Semantic Entrainment Models with Deep Neural Networks
J. Kejriwal, Š. Beňuš and L.M. Rojas-Barahona
Proc. INTERSPEECH 2023, pp. 2628-2632, [Link](#)
- Relationship between auditory and semantic entrainment using Deep Neural Networks (DNN)
J. Kejriwal and Š. Beňuš
Proc. INTERSPEECH 2023, pp. 2623-2627, [Link](#)
- Towards the Use of Social Robot Furhat and Generative AI in Testing Cognitive Abilities
R. Sabo, Š. Beňuš, V. Kevická, M. Trnka, M. Rusko, S. Darjaa and **J. Kejriwal**
Human Affairs, vol. 34, no. 2, 2024, pp. 224-243, [Link](#)
- Does a Robot's Gaze Behavior Affect Entrainment in HRI
J. Kejriwal, C. Mishra, G. Skantze, T. Offrede, and Štefan Beňuš
Comput. Inform., vol. 43, no. 5, Oct. 2024 pp. 1256–1284, [Link](#)
- Lexical, syntactic, semantic and acoustic entrainment in Slovak, Spanish, English, and Hungarian: A cross-linguistic comparison,
J. Kejriwal and Š. Beňuš
Speech Communication, vol. 171, 2025, 103240, [Link](#)

Workshop Paper

- Relationship between speech entrainment and emotion
J. Kejriwal
10th International Conference on Affective Computing and Intelligent Interaction Workshops and Demos (ACIIW), Nara, Japan, 2022, pp. 1-4, [Link](#)

Preprints

- Entrainment Detection Using DNN
J. Kejriwal, Š. Beňuš and L.M. Rojas-Barahona
Submitted to Computer Speech & Language Journal (under review). [Link](#)