Jay Kejriwal

kejriwal.jay@google.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 **Co**nversational **Bra**ins (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 **Co**nversational **Bra**ins (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

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

- Lexical, syntactic, semantic and acoustic entrainment in Slovak, Spanish, English, and Hungarian: A cross-linguistic comparison,
  J. Kejriwal and Š. Beňuš
  Submitted to Speech Communication Journal (under review). Link

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