

# ROHAN SAHA

PhD Student

Department of Computing Science

University of Alberta

Email: rohansaha60@gmail.com    Webpage: simpleparadox.github.io

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## Research Interests

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Deep Learning, Language Models

## Education

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### University of Alberta

PhD - Computing Science. GPA: 4.0/4.0

Curriculum Learning for language models.

Supervisor: Alona Fyshe

2022-Present

Edmonton Canada

### University of Alberta

MSc - Computing Science. GPA: 3.5/4.0

Using language models to understand how the brain processes language.

Supervisor: Alona Fyshe

2019-2021

Edmonton, Canada

### Kalinga Institute of Industrial Technology

Bachelor of Technology, Computer Science and Engineering. GPA: 9.48/10.0    Bhubaneswar, India

2015-2019

## Employment

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### • Natural Resources Canada, Government of Canada 2023

**NLP Research Intern** - Led a successful project to upgrade the language model based recommendation engine for suggesting similar records on geo.ca Supervisor: Xinli Cai Bo Lu.

### • Alberta Machine Intelligence Institute (AMII) 2023

**AI Career Accelerator Program Participant (Consulting)** - Course content contributor for multiple modules for the ML training course offered by AMII. Supervisor: André dos Santos.

### • Robert Bosch Engineering and Business Solutions 2019

**Software Engineering Intern** - Teamed with 4 interns to design and develop a mixed reality proof-of-concept application using Microsoft HoloLens to visualize levels of ambient radiation. Supervisor: Ajay Devulapalli.

### • Endurance International Group (Newfold Digital) 2018

**Software Engineering Intern** - Worked with a team of 2 people to upgrade the primary payments collection system to run on the latest version of Ruby on Rails. Supervisor: Gopal Rohra, Adesh Kala.

# Research

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\* = Equal Contribution

- Rohan Saha\*, Jennifer Campbell\*, Janet F. Werker, and Alona Fyshe. Insights into early word comprehension: Tracking the neural representations of word semantics in infants, September 2023 (Under Review) Preprint.
- Arif Shahriar\*, Rohan Saha\*, and Denilson Barbosa. 2023. Relational Extraction on Wikipedia Tables Using Convolutional and Memory Networks. July 11, 2023(Under Review) Preprint
- Rohan Saha, Cassidy Pirlot. Analysis of Evolutionary Program Synthesis for Card Games. January 2021 Link
- Rohan Saha. Homonym Identification using BERT - Using a Clustering Approach. April 2020 Link
- Rohan Saha. Comparing Classification Models on Kepler Data. Jan 2021 Link

# Teaching

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F = Fall semester, W = Winter semester

- **Teaching Assistant - University of Alberta** W2023  
**CMPUT-302: Introduction to Human Computer Interaction** - Assisted the facilitation of the course to teach and design principles surrounding educational technology applications.
- **Teaching Assistant - University of Alberta** F2020  
**PSYCO-576: Machine Learning for Psychology** - Designed 10+ hours of jupyter notebooks assignments to teach applications of machine learning to neuroscience data.
- **Teaching Assistant - University of Alberta** F2019,W2020,W2021  
**CMPUT-301: Software Engineering** - Involved in teaching hands-on labs mentoring teams of undergraduate students for building an android mobile application. Technologies covered: Android, Java, Firestore NoSQL, Unit / Intent testing, Git.

# Talks

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- **Google ML Study Jam Series:** Hands on walkthrough of a Kaggle Learn course. I gave a talk on how one can train their first machine learning model in python and talked about other foundational ML topics (May 2023). Video.
- **Tech Talk - Linear Models in Machine Learning:** Lead speaker for a session on Linear Models at the Machine Learning Bootcamp organized by Google Developers Group Edmonton and Calgary Data Science Academy (October 2020) Video.
- **Parallels between computer and human representations of meaning (with Dr. Alona Fyshe):** How machine learning can be used with brain-imaging data to understand the processing of information in the human brain. (September 2020) Video.

## Awards

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Name	Year
KIIT Merit Scholarship (INR 30000)	2019

## Service

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### Reviewing

Association of Computational Linguistics (ACL), Neural Information Processing Systems (NeurIPS)

### Department Service

- Computing Science Graduate Student's Association - Vice President 2021-2022
- Computing Science Graduate Student's Association - Academic Director 2020-2021

### Other

- Google Developers Groups Cloud Edmonton - Executive 2021-Present
- Neuromatch Academy (Deep Learning) - Content creator Link 2021