## V. Guru Charan

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in vgurucharan

Google Scholar

## Experience

## Chief Artificial Intelligence Officer

May 2024 - Present

Collaborative Dynamics

- Leading research initiatives in cognitively-inspired approaches to Generative AI, focusing on Theory of Mind and Wisdom of the Crowd.
- o Driving internal red-teaming and blue-teaming efforts to strengthen AI security.
- o Conducting research on the explainability and alignment of large language models.

## Executive Director of Artificial Intelligence R&D

 $Collaborative\ Dynamics$ 

March 2024 - April 2024

Advancing research to enhance the security of large language models.

#### Lead AI Research Scientist

Collaborative Dynamics

Aug 2023 - March 2024

- Fine-tuning large language models for a variety of downstream natural language processing (NLP) tasks.
- o Developing LLM-based Retrieval Augmented Generation (RAG) models.

### Education

### Dayalbagh Educational Institute

Doctorate in Physics

∘ Title: Large-N Chern-Simons models in String and M-Theory ∠

## **Technologies**

Languages: Python, MATLAB, Mathematica, LATEX

#### **Publications**

## Enhancing LLM Security Through the Gated Panel of LLMs Architecture

To be published

V Agam, V. Guru Charan, Kripabandhu Ghosh

# Can LLMs faithfully generate their layperson-understandable 'self'?: A Case Study in High-Stakes Domains 🗹

Dec 2024

Arion Das, Asutosh Mishra, Amitesh Patel, Soumilya De, V. Guru Charan, Kripabandhu Ghosh

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June 2024

Garima Chhikara, Anurag Sharma, V. Guru Charan, Kripabandhu Ghosh, Abhijnan Chakraborty

# On the higher spin spectrum of Chern-Simons theory coupled to fermions in the large flavour limit $\mbox{\em \emph{C}}$

Feb 2018

Journal of High Energy Physics

V. Guru Charan, Shiroman Prakash

## On the higher-spin spectrum in large N Chern-Simons vector models ${\bf \not\! C}$

Jan 2017

Journal of High Energy Physics

Simone Giombi, V. Guru Charan, Vladimir Kirilin, Shiroman Prakash, Evgeny Skvortsov

Journal of High Energy Physics

V. Guru Charan, Shiroman Prakash

### **Invited Talks**

- o Keynote Talk at Future Tech Summit'24, organized by AI Research Centre, Woxsen University in Dec, 2024.
- Talk on "Survey of Large Language Model Research Landscape", at Department of Computer Science, National Institute of Technology Andhra Pradesh in Jan, 2025.
- Talk on "Large-N Chern-Simons theories", at Department of Physics, University of Tsukuba in July, 2018.
- Talk on "Higher spin spectrum of Chern-Simons theory coupled to fermions", at Kalvi IPMU, University of Tokyo in June, 2018.
- Talk at International School on Quantum and Nano Computing Systems and Applications (QANSAS) organized by Dayalbagh Educational Institute in Nov, 2017.
- Talk on "Anomalous dimensions in Chern-Simons theories", at Department of Physics, University of California, San Diego in June, 2017.
- Talk on "The Large-N Limit of Quantum Field Theories", at International School on Quantum and Nano Computing Systems and Applications (QANSAS) in Nov, 2016.
- Talk on "Anomalous dimensions in non-supersymmetric bifundamental Chern-Simons theories", at National Strings Meeting organized by Indian Institute of Science Education and Research, Mohali in Dec, 2015.

### **Professional Services**

Reviewer for NeurIPS, EMNLP, ICML, AISTATS, NAACL, COLING, WiML, NeurIPS workshop - CALM.

### Awards & Achievements

- $\circ$  Secured 99<sup>th</sup> percentile in highly competitive Union Public Service Commission (UPSC) Civil Services Preliminary examination twice (2022, 2020).
- Recipient of the esteemed Director's Medal for academic excellence in the M.Phil. (Physics) examination at Dayalbagh Educational Institute, Agra, in 2013.
- Cleared Council of Scientific and Industrial Research National Eligibility Test (Lecturership) in Physics, 2013.
- Awarded the prestigious Director's Medal for securing the highest marks in B.Sc. Honours (Physics) examination, Dayalbagh Educational Institute, Agra, 2011.
- Indian National Science Academy (INSA) Summer Research Fellow under supervision of Dr. Jatinder Vir Yakhmi at Bhabha Atomic Research Center (BARC), Mumbai, 2010.

### Teaching experience at Dayalbagh Educational Institute

- Taught Discrete mathematics (Credits: 3.0) to Electrical engineering students (Spring 2017).
- o Taught Numerical analysis (Credits: 3.0) to Civil engineering students (Fall 2016).
- Instructor to B.Sc. and B.Tech. students in Physics laboratory (Fall 2014 to Spring 2016).

### Leadership & Additional Contributions

- ∘ Initiated Srijanshala 🗹, a weekly enrichment camp based on Socratic method, and activity-based personalized learning for under-privileged children in Roorkee (2021-Present).
- $\circ$  Founded Agro-Homeopathy based Organic Botanical Herbal Garden (AHOBHAG)  $\mathbb{Z}$ , the first herbal garden in India to employ the protocols of permaculture, agro-homeopathy and zero-tillage; lead a 15 member team, profitable since the 18<sup>th</sup> month of establishment (2020-Present).