

Arun Jose

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Education

Computer Science and Engineering – B.Tech
College of Engineering Trivandrum
08/18 – 06/22 • CGPA: 8.65

Indian School Certificate
Loyola School Thiruvananthapuram
06/05 – 03/18 • ISC: 91.6%

Awards

ELK Contest

Submitted a prize-winning proposal under the strategy "Train a sequence of reporters".

EVOKE'19 Hackathon

Winner, out of 15+ teams
National level tech summit by IEDC & IEEE SB TKMCE

Reboot Kerala Hackathon

2nd Runner Up, out of 30+ teams
State level Hackathon series by the State Department of Higher Education

Pass the Code

Winner, out of 15+ teams
State level tag-team competitive coding competition by IEEE SB GECBH, IEDC, and ISTE

AKCSSC Web Design Contest

1st Place
State level web design competition by IEEE CSKS

Technical Skills

Experienced

Python, PyTorch, React + Native, JavaScript, HTML, CSS

Comfortable

Tensorflow, Java, NextJS, Firebase

Acquainted

C, C++, Assembly (x86), Octave

Experience

Independent Alignment Researcher

09/2022 – Present

- I do research to understand the general form of objectives in AI systems, to build robust and scalable oversight signals on true internal representations of these high-level alignment-relevant properties.
- Worked on a project conjecturing mutual information between internal objective structures and targets as a general property of objectives, and explored the use of linear probes as an initial approach to interface with objectives in ML models, using target location prediction from model activations, resulting in "[High-level interpretability: detecting an AI's objectives](#)".
- Previously I also did conceptual research on generative models, as well as build tooling to accelerate alignment research. One example is "[The Compleat Cyborgnaut](#)".
- Produced a [variety of conceptual and empirical work](#), including "Gradient Filtering", "Trying to isolate objectives: approaches toward high-level interpretability", "Thoughts On (Solving) Deep Deception", "Conditioning Generative Models for Alignment", "Finetuning, RL, and GPT's world prior", and "Simulators show us behavioural properties by default".

Research Scholar

05/2023 – 09/2023

ML Alignment & Theory Scholars 4.0

- Participated in the agent foundations stream with John Wentworth, focusing on theoretical deconfusion of ontology identification and alignment-relevant mechanistic properties of AI systems.
- Explored linear probes as an initial approach to interface with objective structures in ML models, using target location prediction from model activations, resulting in "[High-level interpretability: detecting an AI's objectives](#)".
- Helped mentor cyborgism scholars with Janus and Nicholas Kees Dupuis, extending prior work I'd done on a variety of directions like AI tooling for research acceleration, advanced model evaluations, and building a conceptual theory of language models.

Model Evaluator

03/2023 – Present

ARC Evals

- I work part-time on conducting capability evaluations of frontier models, and eliciting interesting interaction patterns from them. See "[Evaluating Language-Model Agents on Realistic Autonomous Tasks](#)".

ML Research Intern

08/2021 – 08/2022

Median Group

- Worked on conceptualizing a tool using GPT-3 for providing real-time conversational analysis as an external moderator with a lean against structuralism, posturing, and the like, keeping them rich in object-level content.
- Created an ML pipeline for analyzing and classifying segments from audio conversations into clusters based on their argumentative quality and structure.

Personal Projects

Reversible Colour Density Compression of Images using cGANs 📄 📄

Trained a conditional GAN model adapted from the "Image-to-Image Translation with Conditional Adversarial Networks" paper to learn a decompression mapping on images compressed using colour density, a historically impractical avenue of lossy compression.

The Calibration Game 📄 📄

Created an android app in React Native that measures your credence calibration using a question-answer game format.

Aumann's Game 📄 📄

Designed and developed in NextJS a multi-player web version of the calibration game.