

# 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.

### Aumann's Game 🐙 📄

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

### Calibration Game (React Native) 🐙 📄

Android app operating under the rules of the credence calibration game. I handled design, development, and deployment.