

EISHAAN KHATRI

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Education

Rajiv Gandhi Institute of Petroleum Technology, Amethi
B.Tech in Mathematics & Computing — Minor in Business Consulting

Expected May 2026
CPI: 8.80/10.0

Experience

Indian Institute of Management Shillong

May 2025 – Sep 2025

Research Analyst Intern — Mentor: Dr. Shrawan Kumar Trivedi

Remote

- Evaluated how explainable AI methods (LIME, SHAP, attention visualizations) influence trust and decision confidence among non-technical finance professionals reviewing AI-driven investment recommendations.
- Designed explanation formats testing cognitive load theory principles; found chunked visualizations with progressive disclosure increased decision confidence by 23% compared to full-model dumps.
- Interviewed 15 finance stakeholders to identify trust barriers; discovered preference for contrastive explanations ("why this, not that") over feature importance alone.
- Co-authoring research paper on calibrating appropriate reliance through transparent XAI interfaces.

Polka Labs Pte. Ltd. (Polkasassembly)

May 2025 – Nov 2025

AI Developer Intern

Remote

- Built conversational AI assistant deployed across Telegram (3,000+ users), Slack, and Discord for blockchain governance community; analyzed usage patterns across platforms.
- Developed prompt template system reducing average user clarification requests from 2.1 to 0.6 per query through structured information hierarchy and explicit capability boundaries.
- Documented 40+ friction points from user interactions including over-reliance on initial responses, confusion from verbose outputs, and hesitation when AI confidence markers were absent.
- Created internal prompt engineering guide adopted by 8-person product team; standardized tone, error handling, and uncertainty communication.

Behavioral Science Projects & Research

Prompt Framing Effects on User Trust in AI Assistants

Jan 2025 – Feb 2025

- Designed 6 GPT agent personas varying formality, hedging language, and explanation depth; tested with 24 peers across academic and coding tasks.
- Found moderately formal tone with explicit uncertainty statements ("I'm confident about X, less certain about Y") increased trust calibration; users correctly identified AI errors 34% more often vs. overconfident baseline.
- Documented that excessive hedging ("I think," "possibly," "maybe") decreased perceived competence by 18% without improving accuracy detection.

Observational Study: AI Adoption Barriers in Academic Settings

Aug 2024 – Present

- Mentored 15 juniors using GPT for coding and research; systematically documented recurring behavioral patterns: anchoring on first response (73% never rephrased queries), prompt ambiguity, and automation bias.
- Created iterative prompting framework teaching question decomposition and output verification; 11/15 students reported reduced frustration and better results after structured training.
- Developed visual prompt guide illustrating effective structures, currently used by 40+ students in department.

Choice Architecture in AI-Assisted Decision Interfaces

Nov 2024 – May 2025

- Exploring how default suggestions, option ordering, and comparison framing in AI interfaces influence user decisions; building prototype recommendation system to test hypotheses.
- Applying concepts from behavioral economics (anchoring, loss aversion, choice overload) to interface design for AI-assisted product selection.

Technical Projects

Deep Reinforcement Learning Game Agents

Feb 2025 – Present

- Built RL framework from scratch implementing DQN and Actor-Critic algorithms; achieved 87% win rate in CartPole, 65% in LunarLander across 50,000 training episodes.
- Integrated prioritized experience replay and adaptive learning rate scheduling, reducing convergence time by 40%.

Real-Time Multi-Speaker Transcription System

Jan 2024 – Apr 2024

- Built transcription system with speaker diarization using Siamese networks for speaker embedding and SVM classification; achieved 82% speaker identification accuracy on test set of 45 conversation recordings.
- Redesigned transcript formatting based on user feedback; implemented speaker-labeled paragraphs with timestamps, improving readability scores by 31% in subsequent testing.

Relevant Coursework & Learning

MIT 9.00SC Introduction to Psychology – Memory systems, attention, cognitive biases, decision-making heuristics

Behavioral Economics (Self-Study) – Loss aversion, anchoring, framing effects, choice architecture, mental accounting

Behavioural Science & AI (UN Innovation Network) – Applications of behavioral science to AI policy tools; case studies from global researchers

Human-Computer Interaction – Interface design principles, usability testing, cognitive load theory

Skills

- **Behavioral:** User research, interview design, A/B testing, cognitive bias analysis, prompt engineering, explanation design
- **Technical:** Python, R, C++, SQL — TensorFlow, PyTorch, Scikit-learn, Hugging Face — NLP, LLMs, XAI methods — Git, Docker
- **Data & Visualization:** Tableau, Power BI, statistical analysis, experimental design

Achievements & Leadership

- **Rank 1/120** in Mathematics & Computing Department, RGIPT (CPI: 8.80/10.0)
- **Finalist** – National Policy Hackathon 2024 (IIM Calcutta & IIFT Kolkata)
- **Finalist** – FloodAI Hackathon (IIEC IIT Gandhinagar)
- **Overall Management Head** – OWASP RGIPT Student Chapter; led security workshops, mentored 500+ students
- **Teaching Volunteer** – Gyanarpan Foundation; tutored underprivileged students in math and science
- **JEE Advanced 2022** – Top 1.5% (AIR 18,247 among 1.2M candidates)