Chandra Jonnalagadda

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Education

Brown University — Providence, RI
Sc.M. in Computer Science (CGPA: 4.0/4.0) — *Expected May 2027*

Indian Institute of Technology (IIT), Tirupati — Tirupati, India
BTech in Computer Science and Engineering (CGPA: 9.37/10.0, Department Rank 2) — *Nov 2021 – May 2025*
Thesis: Beyond Expectation: Tail-Sensitive RL through Exponential Utility

Papers

[1] **Hierarchical Reinforcement Learning with Temporally-extended Latent Action World Models**
Dan Haramati, **Chandradithya S Jonnalagadda**, Akhil Bagaria, George Konidaris
Under review at ICLR 2027
Model-Based RL in the Era of Generative World Models Workshop at RLC 2026 **(Best Paper)**

[2] **Noise-Gated Learning from Prior Experience for Generative Control**
Zilai Zeng, **Chandradithya S Jonnalagadda**, Patton Yin, Mingxi Jia, Zitian Tang, Stefanie Tellex, Calvin Luo, Yilun Du, Chen Sun
Under review at ICLR 2027

[3] **Latent Actions from Factorized Transition Effects under Agent Ambiguity**
Heejeong Nam, **Chandradithya S Jonnalagadda**, Harshit Aggarwal, Eric Xu, Randall Balestriero
Compositional Learning Workshop at ICML 2026

Professional Experience

Robert Bosch Center for Data Science and AI — Chennai, India
Summer Intern & Student Researcher — *May 2024 – May 2025*

- Advised by **Prof. Balaraman Ravindran**
- Investigated Explainable AI for Graphs to ground LLM reasoning in legal and medical domains.

Chimple Learning — Bengaluru, India
Software Developer Intern — *Jun 2023 - Jul 2023*

- Built a full-stack multiplayer quiz platform using React and Firebase, implementing real-time gameplay, authentication, and quiz management to support **300+** students across India.
- Designed and implemented a quiz authoring interface using React Hooks with Firestore-backed validation.
- Engineered a scalable session tracking and analytics system with Firestore, persisting single- and multiplayer game histories to provide users with detailed performance insights and learning progress.

Teaching

Artificial Intelligence (CS307L) — Spring 2025
*Head Teaching Assistant to **Dr. Ajin George Joseph*** — *IIT Tirupati*

- Delivered a lecture on zeroth-order optimization, simulated annealing and particle swarm optimization.
- Designed coding assignments on A* search, hill climbing, simulated annealing, and alpha-beta pruning.

Compiler Design Laboratory (CS301P) — Fall 2024
*Head Teaching Assistant to **Prof. Venkataramana Badarla*** — *IIT Tirupati*

- Designed and implemented an automated grading system to evaluate student programming assignments.
- Conducted weekly office hours to assist students with compiler construction concepts and debugging.

Introduction to Data Science and Machine Learning (ES109L) — Spring 2024
*Teaching Assistant to **Dr. Kalidas Yeturu*** — *IIT Tirupati*

- Conducted weekly office hours to assist students with course concepts, programming, and assignment debugging.
- Evaluated weekly assignments and semester exams, providing constructive feedback to support student learning.

Introduction to Programming (ES104M) — Fall 2023
*Teaching Assistant to **Dr. Raghavendra Kanakagiri*** — *IIT Tirupati*

- Conducted weekly office hours to assist students with course concepts, programming, and assignment debugging.

Academic Service

Reviewer

- NeurIPS AutoMLR Workshop 2026

Select Projects

Agentic RAG for Privacy Policy QA | *HuggingFace, LangChain, LangGraph, Docker* Nov 2024 – Dec 2024

- Developed an agentic Retrieval-Augmented Generation (RAG) pipeline integrating vector retrieval, web search, and graph-based evidence generation to answer privacy policy queries with grounded, interpretable responses.
- Designed a modular reasoning workflow using LangGraph with CoT task decomposition, response generation, and guardrails for safe, logically consistent outputs.
- Improved accuracy by **15%** over a baseline RAG pipeline by incorporating structured evidence graphs while maintaining practical inference latency at **133s**.

Mixed Feature Model for Software Defect Prediction | *PyTorch, PyG* Feb 2024 – Apr 2024

- Proposed a hybrid CodeBERT–Code Property Graph (CPG) architecture that combines semantic embeddings with graph-based program representations for software defect prediction.
- Investigated model interpretability using LIME, producing line-level defect attributions to analyze and explain prediction behavior.
- Established state-of-the-art performance in low-resource defect prediction, matching or surpassing prior methods with only **10%** of the labeled training data.

Tool Augmentation of LLMs | *LLMs, Prompt Engineering, LoRA, QLoRA* Nov 2023 – Dec 2023

- Designed and implemented a tool-use framework integrating external APIs with LLMs to expand functional execution capabilities.
- Fine-tuned open-source LLMs (LLaMA) and adapted proprietary models (GPT-4) using LoRA and QLoRA on a custom-built dataset of tool-calling arguments.
- Achieved **72%** tool-selection accuracy while optimizing inference costs down to **$0.27 per 100 queries**.

Technical Skills

Languages: Python, C/C++, Java, JavaScript, SQL
Frameworks: PyTorch, LangChain, LangGraph, HuggingFace, TensorFlow, ChromaDB, MERN, Firebase
Tools & Libraries: Git, Docker, pandas, NumPy, Matplotlib, seaborn, Unsloth, PyTorch Geometric, OpenCV