

Education

Master of Science in Computer Science , University of Massachusetts Amherst	May 2025
<i>Coursework: Reinforcement Learning, Adv. NLP, Artificial Intelligence, Algorithms for Data Science</i>	GPA: 3.95
Bachelor of Technology in Computer Science and Engineering , VIT University, Chennai	May 2020
<i>Coursework: Image Processing, Content Based Image and Video Retrieval, Machine Learning, Applied Linear Algebra, Discrete Mathematics and Graph Theory, Web Mining, Software Engineering</i>	GPA: 3.55

Selected Projects

- Generative QA on Traditionally Extractive Tasks** [Skills: NLP, PEFT, Prompt Engineering, Text Generation]
- Finetuned SFT LLMs with PEFT techniques such as **qLORA** to generate answers for RACE, an extractive QA dataset, and approached **SOTA performance** when evaluating with ICL enabled LLM **generated metrics**
- AI Agent for Texas Hold 'em Poker with limits** [Skills: AI, Reinforcement Learning, Game Theory]
- Trained a **memory efficient** AI agent to play Texas Hold Em' Poker with limits while operating with a hard **sub-100ms decision time limit** to bankrupt unseen opponents in **under 250 rounds** with a **68% winrate**
- AI Agent for Warehouses with Movable Obstacles** [Skills: Reinforcement Learning, Simulation, Modelling]
- Applied Reinforcement Learning with **Eligibility Traces** and other techniques to train an agent to navigate a 2D grid with movable obstacles and efficiently reach a target in **under 200 training iterations**

Industry Experience

PayPal

Software Engineer 2 Apr 2022 - Jul 2023

- Designed and implemented end-to-end solutions for a major redesign of PayPal's Billing Agreement Experience which handles **14% of core PayPal TPV across 200 markets globally**
- Proposed and wrote efficient low-level solutions in TypeScript and Java to power **highly distributed, low latency** web services serving **delightful, responsive, and accessible** world-class experiences
- Instrumented user events and impressions for **A/B testing** to reduce abandoned carts and improve cross sales through **cross-functional collaboration**, resulting in a **\$1.2M revenue increase** over two quarters
- Acted as **Scrum Master** for an 8-member engineering team, achieving a **92% mean say-do ratio**

Software Engineer 1

Aug 2020 - Mar 2022

- Conceived and developed a zero-dependency decision engine, reducing **feature development time by 65%** and **total LOC by 80%** on average for onboarded use cases
- Delivered a **highly available**, distributed cross domain MQ platform powered capable of **processing over 1 billion messages/day** to enable a whole host of new customer facing features across products
- Delivered solutions for various engineering improvements and legacy migration initiatives incorporating several **first-at-PayPal** techniques such as Strangler modules and FlowKeeper
- Organized monthly brownbag sessions and annual hackathons for Commerce Services Engineering

Intern

Jan 2020 - Jul 2020

- Developed **NLP pipelines** for **automated case labelling** and analysis on customer support **time-series data** to generate richer insights for Engineering and Operations about emerging issues
- Created a **natural language aware search engine** and an in-house web crawler with Luscene and beautifulsoup in Python to power a site-wide search with **contextual quick actions**

Intern

May 2019 - Jul 2019

- **Migrated services** from legacy RESTful monoliths to **GraphQL microservices** improving maintainability
- Developed **self-contained** React widgets in TypeScript enabling **cross-domain integration**

Research Experience

Design and Development of an Intelligent On-line Teaching-Learning Portal for Enhanced Problem-Solving & Programming Skills [PI: Dr Janaki Meena; supported by a MeitY, Government of India grant of ₹15.9M]

- Investigated feasibility of proposed features for an online programming platform to **enable computer science education** for high schools and universities in underserved regions

Awards

- Received **Key Talent Award** in the 2023 rewards cycle, and was 3-time winner of a Spot Award at PayPal

Skills

Programming Languages: Python, JavaScript, Java, C, C++, SCSS, Solidity

Libraries/Frameworks: PyTorch, Transformers, ReactJS, GraphQL, ExpressJS, MPI

Tools/Platforms: HuggingFace, Docker, Git, AMQ, Kafka, Kibana, SignalFX, Jira, Figma, tmux, GCP, Unity