Harsh Seth

Academic History

Master of Science in Computer Science, University of Massachusetts Amherst

Relevant Coursework: Reinforcement Learning, Intelligent Visual Computing, Adv. Natural Language

GPA: 4.0

Processing, Secure Distributed Systems

Bachelor of Technology in Computer Science and Engineering, VIT University

May 2020

Relevant Coursework: Image Processing, Content Based Image and Video Retrieval, Machine Learning, GPA: 3.55

Applied Linear Algebra, Discrete Mathematics and Graph Theory, Web Mining

Industry Experience

PayPal Inc.

Software Engineer 2 Apr 2022 - Jul 2023

 Solutioned and implemented 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
- Planned and managed work for a team of 8 engineers as Scrum Master, at mean say-do ratio of 92%
- Trained several cohorts of SDE 1s in Web Development fundamentals and interviewed 35 candidates for various Engineering roles across the Payments, Data Sciences, Commerce Platforms domains
- Received **Key Talent Award** in the 2023 rewards cycle, and was 3-time winner of a Spot Award 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

 Jan 2020 -

Jan 2020 - Jul 2020

- Set up a natural language processing pipeline for **automated root cause bucketing and analysis** on customer support call transcripts to better inform Engineering and Operations about emerging issues
- Developed 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

- Delivered solutions for various web experience feature initiatives for Resolution Center Experiences
- Migrated existing functionality from legacy RESTful services to GraphQL microservices

VIT University

Software Developer Mar 2017 - May 2020

• Designed and developed core modules for an in-house programming examinations portal (V-PROPEL) for VIT University written on django, which was scaled to over 10,000 users across 4 campuses

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

Selected Projects

Agent for the "Traffic Jam" Puzzle

[Skills: Reinforcement Learning, Simulation, Modelling]

• Applied Reinforcement Learning with Eligibility Traces and other techniques to train an agent in solving the popular multi entity puzzle game "Traffic Jam" in under 200 training iterations

Visual Media Analysis Toolkit

[Skills: Computer Vision, Information Retrieval, Image Classification]

• A python module providing plug-and-play routines for every stage of the IR pipeline for visual media

Spooky Author Identification Challenge [Skills: Natural Language Processing, Text Classification]

• Our submission to solve the **multiclass** Spooky Author Identification challenge on Kaggle with tree based ensemble learning, achieving a multiclass log loss of 0.29 and a **global submission rank of 129**

Skills

Programming Languages: Python, Java, JavaScript, C, C++, R, SCSS, Solidity **Libraries/Frameworks:** Jax, PyTorch, Keras, Pandas, einops, ReactJS, GraphQL, ExpressJS, MPI **Tools/Platforms:** Hugging Face, Docker, Git, AMQ, Kafka, Kibana, SignalFX, Jira, Figma, Unity