Mahi Pasarkar

Website: https://www.mahipasarkar.com/ | Email: pasarkarmahi@gmail.com
https://github.com/mahi-pas | https://www.linkedin.com/in/mahi-pasarkar/ | https://rainyelephant.itch.io/

Education

Rensselaer Polytechnic Institute | Troy, NY Aug 2020 - May 2024

Bachelor of Science in Computer Science (AI and Data Concentration) and Games and Simulations (Dual Major) GPA: 3.7

- Graduated Magna Cum Laude, Achieved Dean's Honors List 2020, 2021, 2022, 2023, and 2024

Research

Natural Language Processing for Structuring Disease Data | Rensselaer Polytechnic Institute Jan 2024 - Dec 2024

https://ntrs.nasa.gov/citations/20240015043

- First author, published by NASA and IEEE. Used natural language processing methods to transform unstructured disease reports into machine readable format. Published parsing system using open science principles to aid research.
- Team Lead, designed system architecture in Python and divided work among coauthors to meet weekly OKRs.
- Coordinated with experts in epidemiology, meteorological data, and disease modeling to learn domain knowledge.

Experience

GEICO | Remote Jul 2024 - Present

Full Stack Software Engineer II

- Working on GEICO's in-house alternative to cloud platforms like AWS using Go, Python, PostgreSQL, and React JS.
- End to end development of VP analytics dashboard to track cloud usage and spending. Designed backend system and specification, implemented back end and front end UI. Created customized graph components for our specific needs.
- Coordinated with stakeholders to understand requirements for VP analytics dashboard and communicated these with UX designers and colleagues, serving as the source of truth regarding the dashboard and coordinating sprint goals.
- Transitioned front end to confederated UI system, requiring adoption of Typescript, Vite, and HUE UI components.
- Enabling demand intake in front end and backend for cloud resource types such as Kafka, Kubernetes, and VMs.

Submitty | Troy, NY Jan 2023 - Aug 2023

Full Stack Developer

- Developed EdTech software for computer science courses used by several universities, using PHP, Python, Javascript, Twig, HTML, CSS, and PostgreSQL
- Developed major site features such as overhauling calendar system, adding pronouns to user profiles, and fixing major bugs such as assignment setting bugs and security for zip downloads that would expose answers to students.

Sanofi | Bridgewater, NJ Jun 2022 - Apr 2024

Global Regulatory Affairs Intern

- Worked with regulatory department to test Accumulus digitization platform for documents in FHIR standard and XML.
- Performed queries and remediated data in Veeva Vault RIM to assist in data integrity, supporting the documentation.
- Creating documents such as GRCSD and Product Overviews containing regulatory information to support compliance.

Projects

Machine Learning Projects

- Implemented supervised learning methods such as linear model with legendre feature transforms, linear regression, k-nearest neighbors, radial basis functions, neural networks, and support vector machines.
- Managed overfitting with lambdas and constraints. Used cross-validation to avoid data snooping.
- Implemented reinforcement learning method Q learning to train in-game agents using C# and Unity. Created browser demo with live training: https://github.com/mahi-pas/Q-Learning-vs-PPO-Machine-Learning

Miscellaneous Projects

- Webcomic hosted on private Go webserver. Learned server management, security, and configuration using nginx, systemd, ssh keys, and standard debian/linux tools. https://unluckiestman.com/
- Best State Economy Map. Data science exploration with Python comparing state economies for cost of living. Published data to thedigitalera on interactive HTML5 website: https://thedigitalera.org/reports/economic-efficacy/
- Interactive Travel itinerary using NextJS, shows interactive map, cards for each location, filtering by tags, and links to quickly google search each location. https://chimbrance.vercel.app/ (password locked for opsec, type “chimbatsky”)

Skills

Languages: C++, C#, C, Python, Java, PostgreSQL, HTML5, CSS, Javascript, PHP, Go, ReactJS, NextJS
Tools/Libraries: Numpy, Pandas, Matplotlib, Git, Perforce, Unity, Godot, Unreal, Visual Studio Code, Cursor, Copilot
Concepts: Machine learning methods, Linear Algebra, Scrum, Game Design, System Design, Networking, Cybersecurity

Activities

- Google Developer Student Club, Rensselaer Polytechnic Institute Chapter
- Member of Computer Science Honor Society Upsilon Pi Epsilon
- Member of Service Fraternity Alpha Phi Omega