Hiren Rajesh Rupchandani

hrupchan@iu.edu +1-812-650-8663 linkedin.com/in/hiren-rupchandani github.com/HirenRupchandani hirenrupchandani.github.io

Education

Indiana University Bloomington — **Bloomington, IN, USA**
Master of Science in Computer Science | GPA: 4.0/4.0 — August 2022 - May 2024
Relevant Coursework: Applied Algorithms, Elements of Artificial Intelligence, Applied Machine Learning, Software Engineering, Applied Database Technologies, Data Mining, Engineering Cloud Computing, Computer Networks, Security for Networked Systems, Computer Vision

University of Mumbai — **Mumbai, India**
Bachelor of Engineering in Computer Engineering | GPA: 8.25/10.0 — August 2016 - October 2020
Relevant Coursework: Operating Systems, Object Oriented Programming, Natural Language Processing, Database Management System

Skillset

Programming Languages: Python, C, C++, R, Java
Database and Web Technologies: HTML, CSS, JavaScript, React.js, Django, Flask, MySQL, PostgreSQL, MongoDB, Firebase
Python Libraries:, Pandas, Numpy, SkLearn, Tensorflow, Keras, PyTorch, Matplotlib, Seaborn, Plotly, CV2, PySpark, NLTK, Surprise
Relevant Tools: Git, Latex, Docker, Visual Studio, Anaconda, Jupyter, JIRA, Apache Airflow, Netlify, GCP, AWS, Azure
Skills: Data Storytelling, Exploratory Data Analysis, Leadership, Agile, Scrum, RESTful API

Experience

Indiana University Bloomington — **Bloomington, IN, USA**
Associate Instructor | {Elements of AI, Usable AI, Software Engineering} — **August 2023 - Present**

- Mentored over 250 students, optimizing AI and software engineering teaching with statistical insights. Covered search algorithms, game theory, and machine learning techniques
- Utilized agile methodologies, scrum frameworks, and RESTful API techniques to lead 2 teams. Provided support through office hours, practicums, and thorough code reviews

Accredian (formerly INSAID) — **Mumbai, India**
Data Science Researcher — **March 2021 - April 2022**

- Led the data science research team, achieving a 50% reduction in technical support queries during a product overhaul
- Enhanced product usage for 3000+ customers by analyzing 30+ datasets, resulting in a 30% improvement in user experience
- Improved Learning Management System traffic by 40% by teaching Python and related libraries to over 1000 non-coding customers
- Authored and published 33 articles on data science and AI topics, boosting Accredian's Medium publication viewership by 16x
- Increased Accredian YouTube viewership by 300% by identifying key viewership and engagement metrics and through A/B testing

Projects

AnomalyFinder — **August 2023 - December 2023**

- Developed a cloud-based anomaly detection system, achieving over 90% accuracy (F1-score) in identifying network anomalies and deviations in real-time
- Identified 24.6% malicious and 75.4% benign devices, effectively categorizing intrusion types and threats

CrimsonBoard — **January 2023 - April 2023**

- Developed an intuitive Learning Management System resulting in a 90% course completion rate among 1,000+ users
- Optimized website performance using Django, React, and MySQL, achieving sub-2-second page load times and a 50% reduction in server response time compared to competitors
- Refined communication between students and instructors via built-in chat functionality, increasing student satisfaction by 40% and reducing instructor response time by 25%

Video-Game Recommendation System — **April 2020 - October 2020**

- Streamlined video game selection process for new enthusiasts by deploying a collaborative filtering-based system that recommends the top 10 video games based on user preferences and favorite genres
- Accelerated the recommendation process for beginners by 30% by simplifying the cold-start problem by displaying the top 20 games based on recent popularity
- Simplified the user experience by providing personalized recommendations resulting in higher engagement and satisfaction with an increase of 50% in the average number of games played per user

Certifications

- Basic Data Processing and Visualization by UC San Diego — August 2020
- Machine Learning by Stanford University — May 2020
- Building Recommender Systems with Machine Learning and AI by Sundog Education — May 2020