Gaurav Kumar
Software Engineer

kumarg@email.sc.edu
https://www.linkedin.com/in/gaurav98/
https://github.com/liquidslr
+1-803-522-9496

Driven software engineer with a knack for solving complex problems with optimized code and algorithmic efficiency. Experienced in end-to-end application development, specializing in distributed systems, algorithm design, data structures, and machine learning.

Work Experience

Graduate Research Assistant   Jan 2024 - Present
Sutton Lab | Colulmbia, SC

- Working on leveraging generative models to propose molecular structures without exhaustive enumeration, addressing the combinatorial scaling challenge in the design of new molecules and materials.
- Build a model to accurately predict JV Reverse Scan PCE of Perovskite Materials using Tree based models. Working on finetuning large language model on Perovskite Database for accurate band gap prediction.
- Technologies: PyTorch, HPC, Conda, NumPy

Technical Lead   May 2022 - Aug 2023
Yojak | Gurgaon, India

- Developed a cross-platform native e-commerce application to enable QR code SKU scanning, product browsing, and seamless order processing. Worked on the implementation of key features such as real-time stock updates, secure online payment integration, and comprehensive order tracking.
- Architected an integrated ERP system that consolidated order processing, accounting, and supply chain management; eliminated 15+ manual processes resulting in a time savings of over 40 hours weekly for operational teams.
- Led the setup of automated deployment pipelines using AWS, CloudFront, S3, and Docker for both backend and frontend applications. Optimized build times by employing caching at different levels, resulting in a 30% reduction in deployment time.
- Technologies: Python, Django, React, React Native, GCP, AWS, Git, Docker, Kafka, ELK, Code Review

Data Scientist   Dec 2020 - May 2022
Fractal Analytics | Mumbai, India

- Built a Customer Lifetime Value model for a retail client to optimize marketing spend on different channels and calculate ROI. Used an LSTM time series model to predict customers' future spending for the next .
- Implemented a product recommendation model using implicit collaborative filtering and created a multiplier to prioritize seasonal items. Improved dollar sales by 7% $100k/month in an A/B test setup.
- Created and deployed a lead-scoring model in real-time on Kubernetes using FastAPI to create the endpoint improving the lead conversion rate by 20%.
- Technologies: Python, SQl, PyTorch, SageMaker, AWS, SnowFLake

Software Developer Intern   May 2018 - Jul 2018
HackerEarth | Bengaluru, India

- Diagnosed and resolved 10+ critical software bugs within a tight deadline, which improved application stability. Created tooling to deploy the IaC in an alternate
- Designed and implemented RESTful APIs for CodePad an internal tool used by different code editors.
- Technologies : Docker, Webpack, ReactJs, BrowserStack, AWS

Core Skills

Python, C++, NodeJS, Go, JavaScript, Rust, SDLC, Django, React, React Native, Angular, PyTorch, GIT, Linux, Unix, AWS, GCP, Docker, Kubernetes, MongoDB, PostgreSQL, ELK, Linkerd, SQL, Nginx, Firebase, Vue, ServiceNow, IDE, Unit Testing, Debugger

Education

University of South Carolina   Jan 2024 - May 2025

Master of Science Computer Science

Indian Institute of Technology Roorkee   Jul 2016 - Jul 2020

Bachelors of Technology Engineering Physics

Awards

Winner of 5th National Big Data Health Science Case Competition   Jan 2024

BDHSC University of South Carolina

Build a model for accurate sleep stage classification using eeg signal data achieving an accuracy of 92%

Interests

Open Source, Distributed System, Scalable Systems