

Gaurav Kumar

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EDUCATION

- University of South Carolina

- Masters of Science - Computer Science ; GPA: 4.0

Courses: Compiler Architecture, Artificial Intelligence, Digital Image Processing

Columbia, SC
Spring 2024 - Present
- Indian Institute of Technology

- Bachelor of Technology - Engineering Physics; GPA: 7.2/10

Courses: Numerical Methods and Computational Physics, Mathematical Physics, Computer Programming, Optimization Techniques, Data Structures, Mathematical Statistics

Roorkee, India
July 2016 - June 2020

SKILLS SUMMARY

- Languages:** Python, C++, JavaScript, Golang, Rust, SQL, Bash
- Frameworks:** Django, Flask, NodeJS, Scikit, PyTorch, TensorFlow, Keras
- Tools:** Kubernetes, Docker, GIT, PostgreSQL, MySQL, SQLite
- Platforms:** Linux, AWS, GCP

EXPERIENCE

- Sutton Lab

Graduate Research Assistant

Jan 2024 - Present

- 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 GAM based models.
- Yojak

Technical Lead

May 2022 - Nov 2023

- Built a cross-platform native e-commerce application facilitating SKU scanning using QR code, products viewing, and seamless order processing. Key features included real-time stock updates, secure online payment integration, and robust order tracking capabilities.
 - Developed an internal ERP tool to streamline and manage day-to-day business activities such as order creation, accounting, procurement, logistics, and supply chain management. Integrated the tool with CRM for seamless lead conversion.
 - Set up automated deployment pipelines using AWS, CloudFront, S3, and Docker for backend and frontend. Optimized build time of backend and frontend applications using Docker layer and GitHub caching.

- Fractal Analytics

Data Scientist

Sep 2020 - May 2022

- 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 12 months.
 - Developed 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.
 - Developed and deployed a lead-scoring model in real-time on Kubernetes using FastAPI to create the endpoint.

PROJECTS

- Channel i

- Official intranet portal of IIT Roorkee with a wide range of apps. Developed new features, fixed issues, and maintained the deployment pipeline. (July 2017 - April 2020)
- Slambook

- Intranet application for creating a digital slambook and yearbook for final-year students. Developed and deployed the application, which was used by around 5k+ people in college. (May 2018)

AWARDS AND ACHIEVEMENTS

- Winner of the 5th National Big Data Health Science Case Competition 2024
- All India Rank of 3118 in Joint Entrance Examination Advanced 2016
- Secured International rank of 3018 in National Science Olympiad in 2014