### Why Rohit?

I am thrilled to apply for the Intern/Co-Op position, bringing a unique blend of academic excellence, diverse professional experience, and a passion for innovation. Currently pursuing a Master of Science in Computer and Information Technology at Purdue University with a perfect 4.0 GPA, I am eager to leverage my skills to solve real-world challenges effectively.

### **Experience at Razorpay**

During my tenure at Razorpay as a Software Development Engineer, I led several impactful projects, including the re-architecture of the Harvester data service, which saved \$10-11K USD per month. I developed custom whitelisting logic for Maxwell and Debezium CDC collectors, securing around 90% of the company's data. Additionally, I migrated the SRM dashboard from TiDb to Pinot, reducing lag from five minutes to one, and significantly enhancing the experience for multiple teams and clients.

## Machine Learning Internship at Jaguar Land Rover

As a Machine Learning Intern at Jaguar Land Rover, I designed and implemented machine learning pipelines to extract critical information from handwritten sentences, achieving a 70% improvement over previous algorithms. I also developed exponential smoothing and LSTM-RNN models, boosting failure prediction accuracy from 80% to over 90%.

## Research and Projects at Purdue University

At Purdue University, my research has focused on optimizing resource allocation for machine learning pipelines. I designed a metamodel for predicting CPU/GPU and memory requirements, which reduced costs by 25%. I deployed multiple LLM and CV pipelines on Kubeflow in a multi-node Kubernetes cluster, saving 40-50% of resources on average. Additionally, I built and maintained numerous data pipelines to support an NSF-funded cybersecurity education project.

#### **Technical Skills and Contributions**

My technical expertise encompasses a broad spectrum of programming languages and tools, including Python, C++, and cloud computing platforms. I have practical experience with data pipelines, container management, and software development, as well as machine learning engineering and MLOps. My open-source contributions, like enhancing security for the Trino gateway and creating a tool to convert LookML to Cube.js, showcase my commitment to collaborative development and continuous improvement.

# **Commitment to Excellence and Innovation**

In summary, my strong academic background, combined with my extensive experience in software engineering and research, I believe makes me a great fit for the Intern/Co-Op role. I am committed to excellence, driven by innovation, and eager to contribute to your team's mission of transforming the computing landscape.

Thank you for considering my application. I look forward to the opportunity to discuss how my skills, experiences, and enthusiasm align with your team's goals.

Sincerely, Rohit Bankar

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