




K B Rahul

 kb.rahul15@gmail.com

 (+91) 8123905760

 [LinkedIn](#)

 Bangalore



Staff Machine Learning Engineer

Driving AI-powered automation and security to transform customer experience, I lead innovations in LLM-driven chat, search, fraud detection, and agent assistance, building scalable systems that enhance efficiency, personalization, and trust. As a natural leader, I have led small, high-impact teams throughout my career.

My special talent? I am just passionately curious.

Patents & Publications

- **Text-to-SQL Model Anchor Query Generation**
US Patent Pending, May 2024
- **System and method for summarizing of customer interaction**
US Patent, ID:US20210319481A1, Oct 2021
- **A method and system for evaluating quality of semen sample**
US Patent, ID: US20200209221A1, Feb 2020
- **Smartphone Recognition from the recorded speech**
SRIP Poster, May 2016

Experience

Staff Machine Learning Engineer - TLM at Coinbase

Nov 2021 – Present · Bangalore, Karnataka

Architected and deployed scalable LLM-powered systems that transform automation, personalization, agent efficiency, customer self-service, and intelligent hiring—while building and leading a high-impact team to deliver transformative projects.

Developed **Bad Actor Guardrails (\$XXM+)**, a system to **detect agent solicitations** through chat and phone channels with **>99% precision** using LLMs. Enhanced security by proactively identifying and mitigating fraudulent interactions.

Designed **Agent Assist (\$XM+)**, including reactive capabilities that provide **contextual recommendations** to support agents and **proactive solutions** that identify customer issues early, surfacing resolutions. Integrated LLM-powered insights to **improve customer experience** and **agent efficiency**.

Built **Help Center Search (\$XXXK+)**, an **LLM-powered** search system leveraging Coinbase's **help center knowledge base** to deliver real-time, contextual, and **personalized responses**. Improved search **relevance and precision**, enhancing customer experience.

Developed **Coinbase Chatbot (\$XXM+)**, the first at Coinbase scale—an in-house, LLM-powered chatbot **automating ~50%** of chat contacts. Enabled personalized, multi-turn interactions, autonomous knowledge retrieval, and multilingual support, reducing agent workload and improving accuracy.

Created **Resume Scoring (\$XM+)**, an **LLM-powered** tool **assisting recruitment** and hiring managers by **evaluating resumes** based on key requirements and personalized indicators. Enabled **consistent candidate assessment**, streamlining the hiring process.

Enhanced **Coinbase Recommendation Systems – Retail Feed Ranking (\$XM+)** by incorporating **NLP signals** and extracting knowledge from Coinbase articles to **improve content relevance**. Increased personalization and **engagement** by delivering more **relevant recommendations** in the app's feed.

Developed **Listnr – Voice of Customer (\$XXXK+)**, an ML-driven platform analyzing **customer concerns** across support channels. Built an async system for **topic generation** and **attribution**, enabling data-driven improvements in support and product experience.

Skills

Professional

Stakeholder
TLM
CX
VoC

Technical

Pytorch, Tensorflow
Flink, Pyspark, Airflow
Git, GitHub
Containers

Education

Master of Computer Science

University of Illinois
Urbana-Champaign

Class '23, 3.91 GPA
Champaign, Illinois

B.Tech, Electrical and Electronics Engineering

National Institute of
Technology, Karnataka

Class '17, 8.6 CGPA
Surathkal, Karnataka

Higher Secondary, PCMC

KENSRI School

Class '13, 91.8%
Bangalore, Karnataka

Awards & Achievements

Platform Award

Coinbase, 2023 and 2024

Recognized for automating support platforms and launching secure LLM solutions at Coinbase.

Founding/Lead Machine Learning Scientist at Agara - [Acquired by Coinbase](#)

June 2018 – Nov 2021 · Bangalore, Karnataka

Pioneered AI-driven voice automation—built real-time conversation intelligence, autonomous assistants, and summarization systems to enhance customer support efficiency and agent productivity.

Designed and implemented **Voice Assist**, a conversation assistant for human agents, using an LSTM- and **BERT-based attention model** to predict **relevant events** from ongoing **telephonic conversations**. Built a system to retrieve and present relevant **knowledge base articles** in real time.

Developed **Voice Auto**, an autonomous conversation agent, by creating a state-of-the-art transformer-based **text-to-speech model** for real-time interactions and implementing a high-precision **voice word verification** system for user authentication.

Engineered **Voice Summary**, an autonomous **real-time summarization** system for **telephonic conversations** between customers and agents.

Computer Scientist at [Sigtuple](#)

July 2017 – June 2018 · Bangalore, Karnataka

Developed **Aadi**, a **computer vision**-based analyzer for **andrology**, leveraging deep learning (UNet, residual networks, CNNs) for **morphological analysis** and a regression model for **motility estimation**. Solved multi-similar object tracking as an association problem to connect disjoint track sets.

Research Assistant, [Music Technology Group, Carnegie Mellon University, under Prof. Roger B. Dannenberg](#)

Feb 2017 – June 2017 · Pittsburgh, Pennsylvania

Developed [FLOCTRL](#), a platform hosting the **Laptop Orchestra**, utilizing a Forward Synchronous Time-map to achieve multi-platform synchrony. Established a **discovery protocol** to identify and obtain the identity of **nearby devices**, presenting users with a dynamic interface for **composing algorithmic** and **generative music**. Organized a student and academic [computer music composer performance event](#) for the Laptop Orchestra. Contributed to the development of the [O2 platform](#), writing test cases to evaluate its robustness.

Research Assistant, [Audio Forensics Lab, IIT-Gandhinagar, under Prof. Nitin Khanna](#)

May 2016 – July 2016 · Gandhinagar, Gujarat

Implemented an **automatic cellphone detection** algorithm using recorded audio, focusing on **high-frequency feature analysis** in a hardware device. Developed a stochastic feature-based learning model for **device recognition** and introduced a novel feature-set paradigm for efficient high-frequency **information retrieval**.

Top Talent Award

Coinbase, 2022

Recognized for pioneering solutions across multiple domains at Coinbase.

Scholar of the Year

KENSRI School, 2012

Recognized for exemplary and consistent performance across multiple programs.

Best Sportsperson

KENSRI School, 2011

Recognized for significant contributions as a Volleyball captain and Football player.

Languages

English (Proficient)
Hindi (Proficient)
Kannada (Proficient)

Extracurricular Activity

Yoga Instructor

Yoga Alliance, USA

2021-Present

Football Team

National Institute of Technology, Karnataka

2014-2016

[Music, Audio & Research Group](#)

National Institute of Technology, Karnataka

2015-2016