

# RISHAB BANTHIYA

Software Engineer | Data Engineering & Backend

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## EDUCATION

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**University of Illinois at Urbana-Champaign** — B.S. Computer Science + Economics

Aug 2020 – May 2024 | GPA: 3.8/4.0

## EXPERIENCE

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**Société Générale** — Programming Analyst

Jul 2024 – Present | Chicago, IL

- Built report delivery engine on Spark/Azure HDInsight—reduced worst-case query times from 45 min to <5 min, scaled capacity from 100K to 1M+ rows at flat cost
- Built Python/Pandas data comparison platform replacing manual workflows—supports key-based, hash-based, and fuzzy-matching on 100K+ row datasets
- Used weekly by APAC, AMER, and EMEA reporting teams, saving 10+ hours per team per release cycle
- Built ETL pipeline with state-machine parser to migrate 3,000+ SAP BusinessObjects reports to PostgreSQL, enabling full deprecation of legacy tooling
- Won 1st place (AMER) in company hackathon building RAG-based search tool; AI adoption committee member training 20+ devs and presenting to CIO exec committee

**Société Générale** — Technology Analyst Intern

Jun 2023 – Aug 2023 | Chicago, IL

- Built full-stack SLR (Service Level Review) reporting app: PostgreSQL schema, Spring Boot REST APIs, Highcharts dashboards
- Replaced spreadsheet/email workflows, centralized data aggregation for AMER and EMEA prime services teams

**Banach Technologies** — Quantitative Analyst Intern

Oct 2022 – May 2023 | Remote

- Developed and backtested deep Q-learning trading agent for crypto markets using experience replay and OpenAI Gym

**Pfizer** — Software Engineering Intern

Jun 2022 – Aug 2022 | Groton, CT

- Built 4-5 Apache Airflow pipelines for small molecules research team; created management dashboards

**University of Illinois** — Course Assistant (CS 126 & CS 222)

Jun 2022 – May 2023 | Champaign, IL

- Mentored 8 students/semester via code reviews and lab sections—helped students ship 12+ apps in 3 months

## PROJECTS

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**Polymarket Analytics** — *Python, asyncio, WebSockets, SQLite, scikit-learn*

- Live multi-agent trading system for prediction markets with four concurrent strategies (bond arbitrage, flow copy-trading, stat arb, sports portfolio) and shared risk coordination
- Real-time WebSocket pipelines, atomic capital reservation, circuit breaker protection, Bayesian hyperparameter optimization, on-chain reconciliation via Polygon RPC

**Sports Betting Portfolio Optimizer** — *Python, NumPy, scikit-learn*

- Modeling Premier League outcomes as binary options; applying Markowitz optimization and Kelly criterion for portfolio construction (in progress)

## SKILLS

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**Languages:** Python, Java, SQL, JavaScript

**Frameworks & Tools:** Apache Spark, Pandas, Airflow, NumPy, Spring Boot, Docker, Jenkins, Git

**Cloud & Data:** Microsoft Azure, PostgreSQL, HDInsight

**Spoken Languages:** English (native), Hindi (fluent)