Ritam Chakraborty

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EDUCATION

University of California, Berkeley **Berkeley, CA**
Bachelor of Arts in Data Science

- **GPA:** 3.96
- **Relevant Coursework:** Principles and Techniques of Data Science, Data Structures, Foundations of Data Science, Structure and Interpretation of Computer Programs, Linear Algebra & Differential Equations
- **Student Organizations:** Piedmont Consulting Group, Space Enterprise at Berkeley

SKILLS

Languages: Java, Python, Typescript, Javascript, SQL, HTML, CSS
Libraries: Spring, Flask, FastAPI, Pandas, NumPy, Tensorflow, React.js, Next.js, Vue
Developer Tools: Git, IntelliJ, VS Code, Jupyter Notebook, Anaconda, Vim

EXPERIENCE

SomeIdea AI **Berkeley, CA**
Software Engineer Intern *03/2025 – Present*

- Compiled financial data from Fortune 500 companies into a tree schema, stored in vector database for efficiency
- Built a Python script generating 500 ground truth equity reports to fine-tune a domain-specific financial agent
- Developed a React chat interface enabling users to query the chatbot for real-time equity research insights

Balnce AI **Remote**
Machine Learning Consultant *01/2025 – 05/2025*

- Fine-tuned multiple large language models (LLMs) for entity extraction, improved extraction accuracy by 25%
- Established data generation and validation pipelines to produce 1,000+ synthetic data rows for fine-tuning
- Automated testing pipelines for 50+ LLM parameter combinations, reducing manual tuning time by 80%

UpUnikSelf **Remote**
Frontend Developer Intern *01/2025 – 03/2025*

- Crafted and edited 50+ interactive React.js components, contributed to a 20% increase in user engagement
- Optimized data latency speed and API calls by 40% through dynamic rendering and efficient data querying
- Designed intricate layouts for 30+ pages and managed server computing and caching to improve user experience

Space Enterprise at Berkeley **Berkeley, CA**
Simulations Team Member *09/2024 – 12/2024*

- Improved wind speed sampling for rocket simulations by analyzing data from 47 altitudes across 164 days
- Formulated quantitative models to predict wind speeds for nearby altitudes, increased accuracy by 18%
- Migrated a Data Analysis tool to Next.js + FastAPI, reduced data processing time by 30% during launches

PROJECTS

Portfolio Management Risk Estimator | *Java, Spring, SQL, PostgreSQL, Typescript, React.js, Next.js*

- Implemented scheduled program to fetch market data for top 50 companies into a PostgreSQL asset table daily
- Calculated various portfolio risk metrics such as Value at Risk (using Monte Carlo simulations) and Sharpe ratio
- Engineered Next.js frontend for portfolio creation and analysis, integrated with Spring Boot RESTful backend

Equinet | *Javascript, Node.js, React.js, Next.js, Firebase*

- Fabricated a financial-tech platform enabling investors to discover, analyze, and connect with private funds
- Devised a secure investment dashboard with portfolio tracking and investor-fund manager matching
- Released a prototype to a group of angel investors and partnered fund managers to integrate user feedback

Image Recognition for Medicine Package Quality Control | *Python, Pandas, NumPy, Tensorflow*

- Leveraged edge detection for feature extraction and transfer learning for optimizing deep learning algorithms
- Compared efficacies between Convolutional Neural Networks (CNNs) and common machine learning classifiers
- Published methodology and recommendations for future implementation in an academic journal as sole author

Coefficient of Determination (R^2) Visualizer | *Javascript, HTML, CSS*

- Composed an educational website to visually demonstrate how R^2 is calculated for two variable data in statistics
- Constructed a user interface that enables users to plot points on a plane to be utilized for statistical modeling
- Used by a current high school Advanced Placement Statistics teacher to teach R^2 to 100+ students per year

Uno | *Java*

- Remastered Uno with a complete graphical user interface (GUI) and game mechanics using custom animations
- Created local server and client handler so close by users using separate systems can play a single game together
- Instituted a multithreaded server environment to read/write data streams so UI accurately updates for all clients