

Dikshant Vats

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EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
Bachelor of Technology	Indian Institute of Technology, Ropar	7.69	2018-2022

EXPERIENCE

- Quantile Analytics** June 2022 - April 2024
Quantitative Developer Indore
 - Spearheaded collaborative efforts with the Head of Analytics, Head of Technology, and Senior Quants from a **mid-size quantitative hedge fund (AUM > \$4B)** for the development of end-to-end analytics products aligned with key **business objectives**. Incorporated **Agile and Waterfall methodologies** for efficient **project management**.
 - Led the design and development of a **Python library** using pandas and numpy and python , crucial for **Trading & Portfolio Analysis** reducing **30%** time for report generation and analysis.
 - Engineered a **Data API Framework** akin to Bloomberg resulting in a productivity increase of over 50% compared to the use of existing legacy microservices.
 - Engineered a process to publish a **global equity universe** daily based on liquidity, volatility, and easy-to-borrow criteria, consumed as suitable **hedges** in the **Alpha portfolio hedging application**, boosting workflow and application efficiency by **30%**.
 - Partnered with the **futures research team** to build a **fullstack data management** application for visualizing and managing futures tickers, rolling policies, configurations, and historical data.
 - Designed and implemented a **Batch Utility** package aimed at streamlining batch processing of daily loaders, improving developer support, maintaining data integrity, and enabling efficient resolution of process failures, thereby enhancing productivity.
 - Provided **mentorship** to two interns, overseeing their **successful integration**, **project assistance** for building full stack apps and gathering **SEC Data for 10-K, 10-Q, SEC filings, Alternate research Data**, and **skill development** within the team.
 - Exposure: **Python, SQL, MongoDB, Javascript, AngularJS, Bloomberg, Databricks, Pyspark**

INTERNSHIP

- Altair** June 2021 - December 2021
SDE Intern Bengaluru
 - Designed and developed a C++ prototype for a TCL command parser used in Hyperworks. Proficiently utilized C++ **string libraries, stacks, vectors, and regular expressions** to implement parsing functionalities.
 - Formulated a **comprehensive framework** for efficient set creation efficient by 10% compared to existing way, expanded support for **new features, functionalities**, and contributed to **API development** for part-related operations in Hyperworks.
 - Exposure: **C++, OOPS, Data Structures and Algorithms**

PROJECTS

- Trading and Portfolio Analytics Library and Suite** 2022-2024
Quantile Analytics
 - A Quantitative Library to support portfolio related algebra and report computations using **python , pandas , numpy**.
 - **Portfolio related Calculator** functions for **Portfolio Risk, Portfolio Performance, P&L of portfolios , Factor Analysis, Market Impact quantification**, and comprehensive **VaR calculations** reducing **30%** time taken to generate reports.
 - **Full-stack Analytical UI** that leverages Trading and portfolio analytics library products using **Python-Flask** and **Angular** to gain informational insights on **Portfolio Risk, Return, Factor breakdown, P&L attribution, Market Impact**. It encompasses **Long/Short/Total/Group (L/S/T/G) synopsis** and **Time Series reports**.
- Data API** 2023-2024
Quantile Analytics
 - Streamlining the need for specific APIs (microservices) by designing APIs catering to needs such as **single data points, time series, and data snapshots**.
 - **Significantly reducing time-to-market** for new data sets from various vendors in form of **SQL, NoSQL databases, pickle, HDF5** by **80%**, ensuring **rapid** availability to developers and researchers.
 - Leveraged Databricks to maintain ETL pipelines of loaders for the datasets.
- Faculty Leave Management System** Mar 2021 - May 2021
Guided by Dr. Viswanath Gunturi Github
 - Championed the creation of a **Full Stack** Solution for Management of faculty information based on database system, that had individual login, password, dashboard, and could process different kind of leave applications based on the position of an individual.
 - It facilitated access for over **200 faculty members**, resulting in a **30% reduction** in leave processing time. Used **PostgreSQL** to build **Relational Database, Django** to connect it with back-end of Faculty Portal and crafted the front-end of the portal using **HTML/CSS**.

SKILLS

- **Programming Languages & Databases:** Python , C , C++ , SQL , MongoDB , JavaScript
- **Frameworks:** Flask , Angular , React , Apache Spark
- **Tools:** PyCharm , VS Code , Microsoft Office , Git , Screen , Jira , Linux , ChatGPT , Docker
- **Soft Skills:** Client communication , Team leadership , Project collaboration , Inquisitive
- **Quantitative Finance:** Introduction to Programming, Data structures and Algorithms, DBMS , Probability and Statistics , Differential Equations , Linear Algebra, Calculus Applied Machine Learning , Economics, Portfolio Analysis