Arin Dhawan

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EDUCATION

University of Illinois Urbana-Champaign

Champaign, IL

Bachelor of Science in Mathematics and Computer Science

May 2025

Minor: Statistics

Relevant Coursework: Probability Theory, Numerical Analysis, Statistical Analysis, Data Structures, Algorithms, Real Analysis, Data Visualization, Database Systems, Linear Algebra, Computer Systems, and Microeconomics

WORK EXPERIENCE

HERE Technologies

Chicago, IL

Data Science Intern

Sep 2024 - Present

- Analyze sensor data via cameras, odometers, and 3D footprints from vehicle fleets to optimize the current SLAM (Simultaneous Localization and Mapping) algorithms used for mapping locations and improve accuracy with real-world objects via data fusion.
- Utilize Regression Analysis and Cross-Correlation to group and find key insights from image datasets

Rigil Washington, D.C.

Product Analyst Intern

Jun 2023 - Aug 2023

- Introduced a new AWS cloud migration strategy to shift one of Rigil's on-prem applications to the cloud utilizing services such as EC2 instances, S3, IAM, Security Groups, and Elastic IPs to optimize the migration process
- Collaborated with the FinOps and Solutions Architect team analyzing the cost-breakdown for the cloud architecture and services amongst various platforms such as AWS, GCP, and Azure
- Built a leave calculation tool for the HR team to automate the process of leave-salary calculation which can input an Excel file and return paid leave hours for the same file using Openpyxl
- Developed interactive visual dashboards with 7 new KPIs using Tableau for Rigil's HR tools and BD pipeline, including the leave calculation tool, a metric showing the number of active staff on federal contracts, etc.
- Migrated a NoSQL database with over 20,000 records to MySQL workbench via script using pymongo & SQL

PROJECTS & EXTRACURRICULARS

Trade Slippage Calculator | Python, NumPy

June 2024

- Implemented a method to calculate trade slippage by summing the product of exchanged quantities and price differences for each trade, providing a working solution using Python
- Developed 5 new metrics (VWAP Deviation, Order Cancellation Ratio, Order Flow Imbalance, Price Reversion, Trade Momentum) using indicators to analyze possible trends in financial markets

CME Group Commodities Trading Competition | Bloomberg Terminal

May 2024

Commodity Trader

- Competed as a trader ranking 67 among 4267 in agriculture commodities profiting \$25,385 in a week
- Used Contrarian investing strategy to trade futures contracts and analyze the effect on financial markets

MyTube | GCP, SQL, Flask, Python, JavaScript

Oct 2023 - Dec 2023

Database Systems Project

- Built a YouTube Analytics application with more than 300,000 channels existing channels within our given dataset from Kaggle that helps a channel owner figure out their trends, ratings, like/dislike ratio, etc.
- Collaborated with 3 team members to create a grading system using SQL procedure and queries on GCP

Illini Solar Car | React.js, JavaScript, Python, HTML/CSS, C++

Sep 2022 - Jul 2023

Strategy Team, Web App Developer

- Modernized the front end of the telemetry app using React, JavaScript, HTML, and CSS
- Implemented and integrated a heat map utilizing the OpenWeatherMap API and Python
- Researched Python libraries such as cProfile, Pyinstrument, etc. to optimize our physics simulations, the result was a 10% optimization in simulation running time
- Administered onboarding for 12 new members by introducing them to tools such as Git, VS Code, etc

SKILLS

Programming Skills: Python, SQL, R, C, C++, Java, JavaScript, VBA, OCaml.

Developer Tools: GitHub, MongoDB, AWS, Azure, GCP, Docker, PowerBI, Tableau, MATLAB, Excel

Languages: Hindi (Native) and French (Functional)