Ekam Ghotra

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Experience

Fall ML Engineering Intern **Sep 2024 - Present**
Equii Foods *Remote*
- Fine tuning regression and classification models to identify outlier proteins in prototype recipes of future food products using **Python's TensorFlow** and **Sci-Kit Learn**

Data Engineering Intern **Jun 2024 – Aug 2024**
Comcast Corporation - Advanced Engineering *Livermore, CA*
- Specialized in deriving actionable insights from data representing efficiency & reliability metrics of field-active tech
- Utilized **Microsoft** & **Oracle SQL** servers in creating a seamless data warehouse integration framework, often accessed through **DBeaver** for streamlined data management
- Leveraged advanced **SQL** querying techniques & **Python** scripts to engineer data pipelines and enable automated checks for data completeness for subsequent analysis and modeling needs, contributing to a 10% increase in team-wide task ideation for the duration of the summer

Data Science Intern **Jun 2022 – Jul 2022**
Manus Bio Inc. *Augusta, GA*
- Aided computational biology team in parsing DNA fingerprinting data in **Python** and **R**, primarily for genetic trait improvement and novel genetic sequence detection to design commercial & industrial bio-alternatives

Projects

Financial Portfolio Analysis App | *Python - Pandas, NumPy, SciPy* **May 2024 – Present**
- Leveraged **NumPy** and **Pandas** to create custom functions to perform a **Time Series** on given financial data
- Functionality included generating basic & annualized returns, basic & annualized volatility (**Sharpe Ratio**), drawdown's, skewness & kurtosis, VaR/CVaR

Full Stack E-Commerce Site with Intelligent Financial Analysis | *Python, JavaScript, SQL* **Jun 2023 – Dec 2023**
- Developed E-Commerce site using **React.JS**, **Tailwind CSS**, & **Framer Motion** for Frontend Development
- Implemented Backend functionality with **Prisma ORM**, **PlanetScale** to access our **MySQL** server, connecting everything to the **Stripe API**
- Leveraged **Next.JS** and **Flask** to integrate with **Python** classification algorithms built with **SciKit Learn**, **NumPy**, and **PyTorch** to generate future product recommendations
- Enhanced site administration for current **13** users of this E-Commerce platform, yielding an average **15%** increase in per-product profit for all users

Technical Skills

Languages: Python, Java, SQL, JavaScript, R, C/C++, HTML/CSS
Tools: VSCode, MatLab, IntelliJ, Eclipse, RStudio, DBeaver, MongoDB, Prisma ORM, Tableau
Frameworks/Libraries: Pandas, NumPy, TensorFlow, PyTorch, ScikitLearn, Keras, React.JS, Next.JS, Node.JS, JavaFX

Education

University of Wisconsin - Madison **Sep 2022 – May 2026**
BS Computer Science + Data Science, Minor: Economic Analytics *Madison, WI*
- **Concentration:** Algorithmic Development and Mathematical Modeling for ML applications
- **Relevant Course Topics:**
  - Object Oriented Programming
  - Data Structures + Algorithms
  - Artificial Intelligence
  - Statistical Modeling
  - Computer Architecture
  - Linear Algebra
  - Discrete Math
  - Data Systems
  - Econometrics
  - HCI

Extracurriculars / Certifications

CodeForGood Student Organization | *Project Manager, Software Dev Lead, Marketing Chair* **Dec 2023 – Present**
- Leading Backend engineering responsibilities, utilizing **SQL**, **MongoDB**, **Appwrite**, and **Zod**, as well as aiding Frontend development of the organization's primary web page with **React.JS**, **Node.JS**, and **Bootstrap**

IBM Machine Learning with Python | *SciPy, SciKit Learn* **Apr 2024**
- Implementing KNN, regression, and decision trees, and running comparisons of linear regression, multiclass prediction, and SVM models