PRATIM CHOWDHARY

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EDUCATION

Dartmouth College   **Hanover, NH**
B.A majoring in Computer Science & Mathematics, **GPA: 3.7/4.0**   *2021–2025*
- Coursework: Object-Oriented Programming, Accelerated Multivariable Calculus, Linear Algebra, Combinatorics, Honors Probability Theory, Discrete Mathematics, Systems Engineering

Jericho High School   **Jericho, NY**
Regents Diploma with Advanced Designation & Honors Math and Science, **GPA: 3.88/4.0**   *2017–2021*
- Awards: Gold Medal (New York Math Fair), 3rd Place Overall (Brooklyn Technight Hackathon), National AP Scholar

Programming Languages: Python, Java, C++, JavaScript
Technologies: React, Flask, SQL, AWS, MongoDB, Linux, Bash

HIGHLIGHTS

- **3+ years** of hands-on experience developing high-performance applications using Python, C++, and Java.
- Practical experience in presenting technical ideas to **stakeholders** and industry **executives**
- Built, documented, and supported distributed backend frameworks with functional **APIs** and **database** connectivity
- Devised and implemented algorithms including **graph-search, optimization,** etc to solve complex problems

PROFESSIONAL EXPERIENCE

TakeOut7   **Hartford, CT**
Software Engineering Intern   *May 2022 – Present*
- Automated periodic advertising content refresh for **100+ restaurants** saving hours of manual labor using **Typescript**
- Built a framework to generate dynamic websites for clients deployed with **AWS (Route53, S3, Cloudfront)** and **Node**

DALI Technical Lab   **Hanover, NH**
Software Engineer   *November 2021 – Present*
- Developed 3 scalable commissioned apps using **React, Flask, and MongoDB** under 10-week deadlines each
- Collaborated with teams ranging from **4 to 10** including developers, designers, and product managers

Dartmouth Machine Learning Group   **Hanover, NH**
Machine Learning Engineer   *January 2022 – Present*
- Created loan prediction model for **Advantage Capital** of **93% accuracy** using **machine learning** and **data pipelines**

ACADEMIC PROJECTS

Collab Sketchpad (Java) **–** *Synchronized Canvas for Collaborative Drawing*
- Developed a real-time collaborative canvas with users connected simultaneously using **socket streaming**
- Made use of **multithreading** libraries as well as **locks** to ensure no data corruption by interfering threads
- Built both server-side and client-side handlers that together processed incoming and outgoing data of the drawing

Bayes EM (Javascript + Python) **-** *Selected DALI Project*
- Bayes EM is an application allowing ER workers to use patient symptoms to view a probability distribution of diseases
- Built a distributed application with a **React** frontend + multiple API endpoints integrating a Bayesian inference model
- Developed a **Flask-based Rest API** complete with **JSON schema and MongoDB** for processing user data

Project Euler (C++) **–** *Collection of Solved Project Euler Computational Math Questions*
- Used graph search algorithms, dynamic programming, combinatorics theory, etc to solve **20+** computational problems
- The highest difficulty problems having **under 5000 accepted solutions** along with **sub-1-second** runtimes

Stock Sentiment Markov Model (Python) **–** *Using Sentiment Analysis and Hidden Markov Models to forecast returns*
- Used **NLP** to process sentiment scores on news/tweets datasets for **5 tickers** with **100k+ data points** each
- Built a **Hidden Markov Model** via the **Viterbi Algorithm** to find transition probabilities between sentiment and returns

EXTRACURRICULARS

Social Blueprint   **Hanover, NH**
Tech Lead   *April 2022 – May 2022*
- **Design** and **develop** app with team of 4 that fosters community in apartments by connecting residents with landlords
- **Won a $500 grant** by pitching a startup idea to a **panel of 3 judges** at the **Social Blueprint** startup competition

eHacks Virtual Hackathon   **International**
Founder and President   *May 2020 – December 2020*
- Organized two virtual hackathons during the summer and fall of 2020 which hosted over **250 participants**
- Led and managed a team of **15 volunteers** in sourcing industry professionals to guide and judge participants