# **Om Dange**

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**EDUCATION**

**DePaul University** Chicago, IL

*Bachelor of Science | Mathematics and Computer Science | Economics Minor* Expected Graduation: June 2026

**Relevant Courses:** Data Science, Algorithms, Computer Systems, Data Analytics, Object Oriented Programming, Calculus 1, 2, 3 & Multivariable, Advanced Machine Learning. OO Software Development, Software Testing

**Honors & Awards**: Akuna Capital Options 101, CodePath Android Development, Google Cybersecurity Certificate

# **LEADERSHIP**

## **Google Developers Group On Campus – DePaul University** Chicago, IL

*President/ Lead* September 2024 – Present

* Managed team tracking KPIs & marketing strategies to drive event success & engagement of DePaul students
* Planned hackathons to enhance student development & foster community with Google’s leads/ experts.
* Cultivated partnerships with university departments to develop schedule of events, and budgets effectively

# **PROFESSIONAL EXPERIENCE**

## **Headstarter AI** Chicago, IL

*Software Engineering Fellow* July 2024 – August 2024

* Built 5 Al apps and APIs using NextJS, OpenAl, Pinecone, StripeAPI| with 98% accuracy as seen by 1000 users
* Developed projects from design to deployment leading 4+ engineering fellows using MVC design patterns
* Coached by Amazon, Bloomberg and Capital One engineers on Agile, Cl/CD, Git and microservice patterns

## **Motorola Solutions** Chicago, IL

*Machine Learning Researcher* December 2023 – Present

* Conducted preprocessing, cleaning of image datasets using resizing, denoising, segmentation & 3D image resiling
* Developed a high-performing CNN model with 84% accuracy in classifying clinically important MRI slices
* Built an ETL pipeline to train convolutional neural network models for diagnosing fracture & edema based on MRI

## **Supplemental Instruction(SI) Leader at DePaul University** Chicago, IL

*Course: Data Structures*  September 2023 - Present

* Conducted interactive problem-solving sessions resulting in a 40% rise in students' practical application skills
* Achieved academic performance improvements through teaching strategies, boosting students’ performance by 15%
* Collaborated with 5 instructors to synchronize undergraduate & graduate SI sessions, reducing dropout rates by 20%

# **PROJECTS**

## **Black Scholes Option Pricing Model** Chicago, IL

*Web App* August 2024

 Developed Black-Scholes options pricing tool in Python, computing call/put prices with variable market inputs

 Built GUI for visualization with a volatility/spot price heat map and also takes call/put prices to generate P&L heatmap

 Displays volatility/ price graph for current option contract along with its longer-dated options for deeper analysis

## **Market Data Dissemination Simulator** Chicago, IL

*Web App* June 2024 - August 2024

* Built Client and Server orders simulator using Microservice based on Distributed Asynchronous System
* Client side supports subscription of bi-directional streaming updates of its orders from order book managing server
* Utilized gRPC to build cross service communication between client and server through APIs

## **RSI-Based Algorithmic Trading**

*Algorithmic Trading Bot*

## Chicago, IL

March 2024 - May 2024

* Developed algorithmic trading strategies from scratch using Python, focusing on implementing RSI-based strategies
* Utilized portfolio management techniques such as Sortino portfolio optimization and variance optimization
* Conducted thorough back testing of strategies, analyzing performance metrics including Sortino ratio and drawdown

# **SKILLS & INTERESTS**

**Programming Languages:** HTML, CSS, JS, C, C++, Assembly, Java, Kotlin, Python, SQL, R

**Tools:** Docker, TCP/IP (IPv6 and IPv4), CI/CD, ServiceNow, Supabase, OS (Linux, Win, Mac), Selenium

**Frameworks/ Libraries:** NumPy, Pandas, PyTorch, MatPlotLib, Apache Spark, Plotly, Scipy

**Interests:** CFA Aspirant, Options Trading, Running, Tennis, Poker, MTG, Bridge