

Viresh Mittal

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EDUCATION

The University of Chicago

Bachelor of Arts in Computer Science and Economics

Chicago, IL

Expected, June 2027

- GPA: 3.98/4.00; Relevant courses: Systems Programming, Introduction to Probability, Linear Algebra, Calculus III
- Programs: Financial Markets Program, a specialized Booth School of Business program developing skills for quantitative finance; Prototype for Success, a selective cohort growing technology/entrepreneurship skills

Solon High School

Honors Diploma

Solon, OH

May 2023

- GPA: 4.00/4.00 (Top 15 of graduating class); ACT: 36/36; Honor Roll (2020-2023); National Merit Scholar (2023)

EXPERIENCE

Icosa Computing

Technical Intern

New York, NY

June 2024 – Present

- Using Python to create a RESTful API for an in-house quadratic unconstrained binary optimization library

The University of Chicago Voltage Research Program

Research Assistant

Chicago, IL

January 2024 – Present

- Assisting Professor John List and his team in economic field experiments by cleaning and pre-processing experimental data, building competency in data analysis, research techniques, and computational tools (Excel, Python, web-scraping, etc.)
- Conducted a comprehensive literature review, surveying papers on opportunity cost in the context of decision-making

De Nora Tech, LLC

Operations Intern

Concord, OH

June 2023 – September 2023

- Independently developed a GPT-powered, retrieval augmented generative AI solution via Python and Microsoft Azure for document analysis and QA currently used by a 9-person pilot team at 6x lower cost than commercially available alternatives
- Used Microsoft Azure, GitHub Actions, Docker, and Python's LangChain LLM library to implement solution

Peppertree Capital Management, Inc.

Finance Intern

Chagrin Falls, OH

May 2023

- Modeled assets using DCF in Excel to determine private equity strategy, and assisted with investor/portfolio meetings
- Utilized VBA to refine current program that uses FCC and proprietary data to continuously update a Google Earth overlay of all antenna structures in the United States that is used by the entire firm when evaluating potential telecom assets

Case Western Reserve University

Summer Research Assistant

Cleveland, OH

June 2022 – Aug 2022

- Worked under Professor Ya-Ting Liao in the Computational Fire Dynamics Laboratory to develop a ML model using PyTorch and Keras to predict pyrolysis of NOMEX fibers for future use to develop more robust fire-retardant fibers
- Presented at the 2022 John Glenn Memorial Symposium Student Poster Contest and won the high school division

LEADERSHIP & ACTIVITIES

Algo Group

Board Member

Chicago, IL

October 2023 – Present

- Worked in a selective cohort to understand data structures and key algorithms through lectures and practice problems
- Currently leading future cohorts as part of the leadership board after exemplary engagement as a cohort member

Derivatives Group Quant Trading

Curriculum Associate

Chicago, IL

October 2023 – Present

- Participated in an 8-week quantitative finance education program covering financial derivatives and probability/statistics
- Developing content for new member education series after being selected as an associate for curriculum development

University of Chicago Institute of Politics, TechTeam

Developer

Chicago, IL

January 2024 – Present

- Developing software solutions for nonprofits; past work includes a parallel web-scraping solution to gather and store open source intelligence for the Anti-Human Trafficking Intelligence Initiative using Python, SQL, BeautifulSoup, and asyncio

TECHNICAL PROJECTS

Go Board Game

February 2024

- In a 4-student team, developed a Go game in Python supporting up to 8 players playable on a GUI or command-line interface featuring a computer player using a simplified version of the minimax algorithm; code available upon request
- Technologies: Python, PyGame, PyTest, git, GitHub, Linux

UChicago Uncommon Hacks Hackathon Prize Winner

March 2024

- Worked in a team to develop a website calculating net carbon emissions between two points using the Google Maps API and a given vehicle profile pulled from a MongoDB database, giving suggestions on ways to reduce carbon footprint
- Technologies: Python, Google Maps API, MongoDB, Streamlit, HTML, BeautifulSoup

SKILLS

Computer: Python (advanced), Java (advanced), Visual Basic (experienced), LaTeX (experienced), R (experienced), Microsoft Azure (experienced), C/C++ (experienced), Android Studio (proficient), Git (experienced), Pandas (proficient), NumPy (proficient), TensorFlow (proficient), SQL (proficient), JavaScript (familiar), React (familiar), HTML/CSS (familiar)

Languages: English (native), Hindi (conversationally fluent), Spanish (proficient)