Anish Jayant

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ABOUT

I am an undergraduate student at USC studying Computer Science and Applied Mathematics. My research interests lie in the intersection of theoretical computer science and statistics, mainly using tools from learning and information theory. Recently, I have been interested in the role of memory in machine learning and optimization tasks.

EDUCATION

University of Southern California, Los Angeles, CA

BS Computer Science, BS Applied Mathematics

2022-2026

GPA: 4.0/4.0

Relevant Coursework: (graduate coursework *italicized*)

Completed: Theoretical Machine Learning, Algorithms, Mathematical Statistics, Number Theory, Linear Algebra, Data Structures, Numerical methods, Computer Systems. Projected (Fall 2024): Cryptography, Real Analysis I, Computer Networking

Canyon Crest Academy, San Diego, CA

High School Diploma

2018-2022

Unweighted GPA: 4.0/4.0, Weighted GPA: 4.64, ACT Score: 36/36

EXPERIENCE CS Theory Group, USC

Undergraduate Researcher

Spring 2023 - Current

I am very fortunate to be advised by Prof. Vatsal Sharan. Below are some projects.

(Current) Tradeoffs between memory and sample complexity in sparse principle component analysis (PCA).

(Current) Tradeoffs between memory and sample complexity in smooth convex optimization. (Past) Researched fairness and biases in ML through multicalibration, under guidance of Sid Devic (Ph.D. student). Introduced to the field of learning theory and algorithmic fairness.

Quant SC, USC

Project Member

Fall 2022 - Current

Participated in a semester long project learning and backtesting quantitative trading strategies.

SKILLS

Theory: Statistical learning theory, algorithms, some basics of communication complexity.

Applied CS: Experience with C/C++, x86 Assembly, Python, Java.

Math: Strong but improvable background in linear algebra, probability/statistics theory, and analysis. Special interest in information theory.

AWARDS

Dean's List , awarded by Dornsife (Mathematics) and Viterbi (CS)	2022 - Current
WVT Rusch Honors Scholar, undergraduate research thesis program.	2023 - 2026
Viterbi Fellow, cash stipend awarded by Viterbi School of Engineering, \$1,500	2022 - 2026
Trustee Scholarship, full-tuition scholarship awarded by USC.	2022 - 2026
Provost Scholarship, research stipend by Viterbi School of Engineering, \$1,000	2024

GROUPS & CLUBS

USC Theory Group , attends talks, occasional hikes, and continuous research.	2023 - Current
Quant SC, participates in projects and meetings about algorithmic trading.	2022 - Current
AI Safety Club, participates in weekly meetings and club reading group.	2024 - Current