MARK AKLADIOUS

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EDUCATION

Yale University, New Haven, CT | **GPA:** 4.00/4.00 | **SAT:** 1580/1600

BS in Statistics & Data Science / BS in Molecular Biophysics & Biochemistry

- **Relevant Coursework:** Computational Linguistics & NLP, Computability & Logic, Probability Theory, Quantum Mechanics I, Relativity, Ordinary & Partial Differential Equations, Linear Algebra, Calculus III.
- **Awards:** Coca-Cola Scholarship Semifinalist (1.4% accepted), National Merit Finalist/Scholar, Rochester Institute of Technology Excellence in Math & Science Award.

EXPERIENCE

Batista/Girvin Lab, Yale QC Institute | Quantum Computing Researcher   August 20th, 2025-Present

- Developing **holographic quantum circuit models** leveraging AdS/CFT duality to simulate many-body dynamics on reduced qubit architectures, exploring scalability of holographic quantum computing.
- Collaborated learning with Girvin Lab on superconducting transmon devices to explore the practicality of **physical hardware capable of supporting holographic algorithms**, optimized for long coherence times and noise resilience.

Wedekind Lab, UR School of Medicine | Biophysical Research Intern   May 8th, 2025-Present

- Leveraged **deep-learning density interpretation** methods (CNN-based map segmentation) recently applied in crystallographic pipelines to accelerate refinement of the pyrR riboswitch structure.
- Developed computational workflows combining **maximum-likelihood refinement** with machine-learning–driven error estimation to identify allosteric modulation sites for bacterial and viral inhibition strategies.

Ciedon Therapeutics | Marketing Associate & Grant Writer   Oct. 2024-Present

- Secured partnership with Yale Oncology department in **pre-seeding round**; received full $50,000 needed to begin screening and optimization of first of its kind calcium-based antibody for cancer treatment.
- Pitched to investors and delivered collateral materials to VCs across six US states, Europe, and Hong Kong; Applied **to +10 state and federal grants**, contributing to **awarded sub-30 STTR score**.

ACTIVITIES

Goergen Data Science Institute | Research Partner   Jul. 25th, 2023-May 2024

- Assisted with research on predictive capabilities of smart wearables in postpartum diagnostics, and associated treatment inequities for low-income and BIPOC perinatal patients.
- Analyzed data from a bank of +608,000 electronic health records to design **inpatient diagnostic collection system in R** with the potential to impact over 3.7 million patients nationwide.

Yale Undergraduate Consulting Group | Project Manager   Aug. 2024-Present

- Led team of 12, in facilitating the transfer of time-tracking data from excel native spreadsheets to a fully interfaced FTE allocation tool for nearly 5,000 employees within a global, Fortune 10 pharmaceutical company.
- Implemented **permutation test** and **K-means clustering algorithm** in R on survey data from 1,000 Yale athletes to identify collegiate health trends for a fast-growing fitness startup—complete report delivered to C-suite.
- Featured in *The Economist*.

SKILLS

Languages: Python (Pandas, TensorFlow, NumPy, Matplotlib, Jupyter), Qiskit, R.

Physical: Wet Lab Research, Market Research, Marketing & Pitching.