# Govind Velamoor

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## SUMMARY

Yale University student pursuing a double major in applied mathematics and computer science with experience developing predictive models to analyze large datasets. Leverages a strong foundation in algorithms and probability through first-author research in distributed systems and internships focused on machine learning. Eager to apply a quantitative and software engineering skill set to solve complex problems.

## EDUCATION

**Yale University,** New Haven, CT                                                                                    May 2029
- *BS* in Applied Mathematics, *BS* in Computer Science
- *Relevant Coursework:* Probability Theory, Discrete Mathematics
- *Activities & Societies:* Party of the Right, Yale Political Union, Urban Philanthropic Fund, Yale Undergraduate Mathematical Society, Yale Undergraduate Science Bowl, Yale Computer Society, Yale Student Quantitative Finance Organization, Yale Poker Club, Yale Entrepreneurial Society

**Commonwealth School,** Boston, MA                                                                              May 2025
- *Awards:* FTC Robotics World Championships 3rd Place Inspire Award, Three-time AIME qualifier

## RESEARCH EXPERIENCE

**D.O.C.C. Lab, Tufts University,** *MIT PRIMES Student Researcher,* Medford, MA            February 2024 - Present
- Created a novel algorithm to continuously determine optimal timeout values across distributed systems using probabalistic modeling, improving worst-case latency by 40%
- Developed a custom microservice testbed from scratch, deployed using Docker
- Presented first author [paper](paper) at MIT PRIMES 2024 Fall Conference, 2025 Spring Conference

## WORK EXPERIENCE

**Kalderos,** *Sales Development Intern*, Boston, MA                                                   June 2025 - August 2025
- Developed a predictive sales outreach tool by cleaning historical email data, applying graph algorithms and similarity matching to identify optimal contact sequences, processing over 50,000 emails; presented work to executive team
- Engineered LLM-driven workflows to gather real-time prospect/client insights via web research and auto-draft personalized outreach emails

**Cold Chain Technologies,** *Data Analytics Intern,* Franklin, MA                                June 2023 - August 2024
- Developed Python scripts to model to analyze the supply chain for a new reusable product line
- Analyzed UPS shipment data to predict the effect of transit temperature exposure on packages to provide recommendations on optimal routes and specifications for such packages
- Presented work to executives, impacting their roadmap and making personalized cancer vaccination treatments cheaper to ship

## PROJECTS & LEADERSHIP EXPERIENCE

**Co-Founder and Co-Director,** IMTC                                                                       July 2020 – Present
- Managed competition's timeline, crafted novel problems, developed websites, recruited team members, and maintained community through events and chatbot games; reached 2500+ students globally
- Secured sponsorships to reward winners (averaging $20k+/year) from companies like 1Password, Wolfram, and Replit

**Software engineer,** FIRST Tech Challenge Robotics                                                July 2021 - May 2025
- Responsible for game strategy, vision systems, software architecture, pathfinding algorithms (open-sourced)
- Helped organize and teach robotics classes for middle and elementary school students (25+ students/class); ran local robotics events, volunteering for 100+ hours

## TECHNICAL SKILLS

- *Programming Languages:* Java, Golang, Python, Racket, Rust, LaTeX
- *Tools:* Docker, Git, Numpy, Redis, Gin/Flask
- *Skills:* Data Analysis, Machine Learning, Distributed Systems, Generative AI, NLP