

Benjamin Bakal

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EDUCATION

Massachusetts Institute of Technology

Cambridge, MA *Exp. May 2026*

- Candidate for B.S. in Computer Science and Artificial Intelligence
- Relevant Coursework: Introduction to Machine Learning, Managerial Finance, Probability and Random Variables, Introduction to C and Assembly, Macroeconomics Theory, Quantitative Methods for Natural Language Processing, Design and Analysis of Algorithms, Optimization Methods, Fundamentals of Statistics

EXPERIENCE

Decentralized Social Network Researcher | MIT Media Lab

Cambridge, MA *June 2024 – Present*

- Conducting research on bias and safety in decentralized social media platforms, including Mastodon and Blue Sky, as a part of Project Liberty which aims to create a safer internet by giving people more control over their digital platforms
- Developing bias detection algorithms to identify vulnerable classes, scraping data from traditional and decentralized social media platforms, increasing identification speed by 5% and improving user safety by reducing exposure to harmful content

Decentralized Coin Initiative Researcher | MIT Media Lab

Cambridge, MA *Sep. 2023 – Jan 2024*

- Developed a bitcoin mining reward policy proposal by analyzing mining cost variability across the globe, offering dynamic rewards to incentivize energy-efficient miners and maintain security during network growth
- Analyzed US Treasury Repo market data, which has a volume of \$4 trillion per day, to propose a smart contract infrastructure aimed at sustainably increasing trade volume without compromising financial stability

Algorithmic Robotics Pathfinding Researcher | Technion ANPL Lab

Haifa, Israel *June 2023 – August 2023*

- Worked in the Autonomous Navigation and Perception lab established by Prof. Vadim Indelman, focusing on multi-robot autonomous perception, navigation, and planning in uncertain environments for mobile robotics
- Implemented a heuristic path recalculation technique for mobile robotics in a dynamic landscape which reduced the algorithm computation time by 10% and improved accuracy of the robot path

Payments for Ecosystem Services | MIT Economics Department

Cambridge, MA *Jan. 2023 – June 2023*

- Researched how various auction strategies impact the efficacy of a government subsidy for sustainable farming
- Analyzed the performance of a fraud detection model for subsidy recipients and uncovered previously undetected errors in the generalization of the model

LEADERSHIP & EXTRACURRICULARS

MIT Poker Club | Treasurer

Cambridge, MA *Sep. 2023 – Present*

- Managed club finances and balanced the annual budget to support club activities and events
- Coordinated both national and local tournaments at MIT, some of which had over 100 attendees

MIT 15.S50 IAP Poker Theory Class | Instructor

Cambridge, MA *Jan. 2024*

- Taught an MIT class on poker fundamentals, covering Nash equilibrium, game theory optimal strategy, and exploitative play
- Received from students a teacher evaluation rating of 7.0/7.0

Pokerbots Competition | Participant

Cambridge, MA *Jan 2023, 2024*

- Developed a Python-based bot to play a unique variant of Poker in a competition at MIT in a team of three
- Battled other teams' bots to refine our strategy and improve upon other team's weaknesses with an exploitative strategy

MIT Varsity D1 Heavyweight Crew | Member

Cambridge, MA *Sept. 2022 – Present*

- One of two athletes awarded 2022 Scholastic Rowing Association Silver Scholarship for excellence as a student-athlete
- Developed teamwork, leadership and time-management skills (20+ hour per week time commitment)

SKILLS & INTERESTS

Skills: Python, Typescript/JavaScript, HTML, C, Java, Julia, React, Conversational Spanish

Interests: Poker, Biking, Running, Board Games, Guitar, Swimming, Hiking, Canoeing