

# SAM ACQUAVIVA

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## EDUCATION

### Massachusetts Institute of Technology (MIT), Cambridge, MA

*Candidate for Bachelor of Science degree in Computation and Cognition, May 2023*

- Relevant coursework: Algorithms, Machine Learning, Computational Thinking and Data Science

## RELEVANT EXPERIENCE

### MIT Computer Science and Artificial Intelligence Laboratory

*Computational Cognitive Science Group Researcher, May 2020 – Present*

- Created data collection platform and a novel bandit algorithm to conduct a large-scale Mechanical Turk study
- Presented original dataset at the Association for the Advancement of Artificial Intelligence 2020 Conference
- Currently developing a latent language model with a group of five postdoctoral researchers that uses the dataset to solve the Abstraction and Reasoning Challenge—a currently unsolved benchmark for artificial general intelligence

### St. Paul's Episcopal Church Newburyport

*Head of Technology, May 2018 – August 2020*

- Redesigned website, reorganized backend infrastructure, and improved security as part of a three person team
- Enabled service live-streaming and secure online donations

## PROJECTS

### Kandula

*Written in Swift and Python, uses Amazon Web Services*

- Created API and app that enables anyone to create and customize stock-trading algorithms without programming
- Hosts a plethora of trading algorithms on the cloud involving deep learning and quantitative analysis

### Acquacchi Chess Engine

*Written in C*

- Expands alpha-beta search with heuristics and bit-level algorithms
- Evaluates over 1.5 million positions per second

## SKILLS

*Technologies:* Python, C++, Javascript, Swift, C, PyTorch, Firebase, Amazon Web Services, React

*Soft Skills:* creativity, communication, collaborability, reliability

## ACTIVITIES AND EXTRACURRICULARS

### MIT Ethical Technology Initiative

*Technology Co-Chair and Outreach Co-Chair, September 2020 – Present*

- Created website and led recruiting efforts to promote the new club
- Currently designing the club's first project to explore dangerous sources of bias in computer vision

### MIT Track and Field and Cross Country

*Athlete, September 2019 – Present*

- Maintained full academic rigor while training and competing twenty hours per week, year-round

### MIT Class of 2023 Class Council

*Vice President, September 2019 – August 2020*

- Organized and carried out multiple class-wide events for hundreds of students
- Worked with other class councils to successfully negotiate a fairer grading policy in the age of COVID-19