

Arvid Lunnemark

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EDUCATION

Massachusetts Institute of Technology

Candidate for Bachelor of Science in Mathematics (18) and Computer Science (6-3)

Cambridge, MA

September 2018 – May 2022

- **GPA:** 5.0/5.0
- **Selected Coursework:** Algorithms (6.854, 6.890, 6.046), Theory of Computation (18.404), Algebra (18.701), Real Analysis (18.100Q), Machine Learning (6.036), Linear Partial Differential Equations (18.303), Computation Structures (6.004), Software Construction (6.031), Probability (18.600).

EXPERIENCE

Stripe

Software Engineer Intern

Remote

May 2020 – August 2020

- Created a dashboard for engineering teams to monitor their tests, highlighting slow and flaky ones. Used React for the frontend, Ruby for the backend, and Redis for storing and querying the data.
- Also worked on a few smaller tasks as part of the Test Infrastructure team's day-to-day workflow, including a logging timestamp in Go.

QuantCo

Software Engineer Intern

Cologne, Germany

June 2019 – August 2019

- Wrote performance tests for a Go and Gunicorn server to analyze unexplained timeouts. The work resulted in a model of the optimal server configuration as a function of server load.
- Created a command-line tool to generate Kubernetes configuration files based on the model. The tool was incorporated into production (for deploying to a server handling millions of requests daily), increasing reliability and decreasing costs.
- Devised and implemented an algorithm for grouping health claims more cost-effectively, modeling the problem as an instance of MinCostSAT.

Massachusetts Institute of Technology

Undergraduate Researcher

Cambridge, MA

September 2018 – May 2019

- Created a Python package for converting spoken math formulas into LaTeX code, under the supervision of Dr. Kyle Keane within the Department of Materials Science.
- Project information available at saytex.xyz.

AWARDS

International Mathematical Olympiad. Gold Medal 2018, Bronze Medal 2017.

International Olympiad in Informatics. Silver Medal 2017.

LEADERSHIP

MIT Battlecode

Co-President

Cambridge, MA

August 2019 – March 2019

- Led the tech operations of MIT's longest-running programming competition, which attracts thousands of competitors globally and awards sponsor-funded prizes totaling \$30,000. More information at battlecode.org.
- Managed a team of 12 students working on the website in React and Django, the game software in Java, and the server infrastructure on Google Cloud.

PROJECTS

iOS Apps

2015 – Present

- *Speedafari:* Utility to speed up web browsing by blocking ads and scripts. 100,000 downloads, out of which 4,000 were paid. Well-received in the reputable blogs MacStories and Lifehacker. Link: apps.apple.com/app/id1030762703.
- *Simple Counter:* Tally counter with a focus on simple, adaptive design. 30,000 downloads, out of which 1,000 were paid. Rated 4.9/5.0 stars by users. Link: apps.apple.com/app/id993429927

SKILLS

Programming Languages. Python, Java, Go, Swift, JavaScript, C++, Dart, Bash.

Technologies. React, Django, Flask, HTML, CSS (web); Numpy, Pandas, SQL (data analysis); iOS SDK, Flutter (mobile); Kubernetes, Docker, Google Cloud, Redis (infrastructure); Git.

Spoken Languages. Fluent in English and Swedish. Limited proficiency in French and Russian.