Abutalib-Barish Namazov

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Education

Massachusetts Institute of Technology

Cambridge, MA

Bachelor of Science in Computer Science and Engineering; GPA: 5.0/5.0

May 2024

Relevant coursework: Software Construction, Advanced Algorithms, Discrete Math, Machine Learning, Probability & Random Variables, Linear Algebra and Optimization, Web Design, Compiler Design, Computer Systems

Leadership: Founding President of Open-Code @ MIT, Fouding Vice-President of Video Gamers Alliance

Experience

Software Design Group, MIT

Cambridge, MA

Software Researcher

September 2023 - May 2024

- Created a backend framework in TypeScript to support development of concept-driven, fully modular web applications.
- o Designed a HTML superset, natively reactive frontend DSL to use with LLM integration. Coded interpreter in Vue 3.
- o Developed Kodless from scratch using Nuxt, enabling fullstack web app creation via natural language prompts.
- Reduced student development time by over 50% in MIT classes; Kodless featured in TEDxBoston and Forbes-sponsored MIT CSAIL talk.

Citadel LLC

Chicago, IL

Quantitative Research Enginering Intern in GQS

June 2023 - August 2023

- Built an end-to-end Big Data pipeline (C++ with Python bindings) to collect usage data from firm-wide APIs, managing transfer to cloud storage. Developed an analytics framework and visualization dashboard to monitor API performance and usage.
- Optimized KDB Reader by implementing efficient sorting techniques, enhancing processing speed, and conserving memory for trade and quote data extraction.

Microsoft Redmond, WA

Software Engineering Intern

May 2022 - August 2022

- Developed a tool (C# and C++) to regenerate digitally signed XML licenses with custom modifications, improving debugging and enabling abstraction of licenses into readable objects.
- Enhanced license validation and diagnostics to validate restrictive conditions and improved a C++ diagnostic tool for user-friendly output and license key-holder details.

Massachusetts Institute of Technology

Cambridge, MA

Research Assistant, Teaching Assistant

February 2021 - May 2024

- Laboratory for Nuclear Science: Developed responsive web controls with ReactJS for the IsoDAR experiment, optimized Flask and C++ code for reading speeds (30-75 Hz), and published work in NIMA.
- Haystack Group @ CSAIL: Contributed to a domain-specific app and research, facilitating data calculations and graph visualization for microjournaling.
- Teaching: Helped to teach more than 2000 students over multiple semesters in classes Fundamentals of Programming, Software Construction,
 Web Design, and Software Design. Authored educational programming content in all of these classes.

Projects and Voluntary Work

- Taught free and public competitive-programming classes to over 1000 students in Azerbaijan in winters of 2023 and 2024.
- o Co-founded Fuiz, a Kahoot-like platform for online live quizzes. Coded in Rust, SvelteKit, and serverless over Cloudflare.
- Hosted a privacy and security talk in OpenCode @ MIT to help internet users understand and protect their privacy better.

Programming skills

Languages: C, C++, Rust, C#, Python, JavaScript, TypeScript, HTML, CSS, Scheme

Technologies: Git, UNIX/Bash, Vue, SvelteKit, Express, FastAPI, NumPy, Pandas, Ray, Spark, WebSockets, NoSQL, SQL, Serverless/Edge **Competitive Programming**: Strong algorithmic thinking and broad knowledge of data structures; master rank in Codeforces, 6 stars in CodeChef, and O(1) rank in HackerRank (99.99th percentile)

Awards

International Olympiad in Informatics Bronze medal (2020) International Olympiad of Metropolises Silver medal (2019) Junior Balkan Mathematics Olympiad Silver medal (2018) International Zhautykov Olympiad Gold medal (2020)

National Olympiad in Informatics 3 Gold medals (2017-2019)

National Olympiad in Mathematics Silver medal (2018)