

Andrea Bylykbashi

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SUMMARY

Bachelor of Science candidate in Electrical Engineering & Computer Science with experience building software systems, developing quantitative financial models, and translating complex datasets into actionable insights for research and advisory. Proficient in Python, C/C++, SQL, Excel, and statistical modeling; delivered data-driven analyses improving forecast accuracy and informing decisions in academia and industry. Seeking to apply problem solving in the finance industry, partnering with teams to drive rigorous, data-driven decisions.

EDUCATION

Yale University, New Haven, CT Expected Graduation May 2028

BS in Electrical Engineering and Computer Science

Certificates: *Quantum Science and Engineering, Data Science*

Relevant Coursework: Data Structures and Programming Techniques, Linear Algebra, Multivariable Calculus, Physics (Classical and Quantum Mechanics, Electromagnetism)

GPA: 4.0

World Academy of Tirana, Tirana, Albania May 2024

International Baccalaureate Diploma Programme

Score: 45/45

EXPERIENCE

McKinsey & Company, *Sophomore Summer Business Analyst*, Darien, CT Summer 2026 (Incoming)

Yale University, *Undergraduate Learning Assistant for CPSC 2230*, New Haven, CT August 2025 – Present

- Lead office hours and review sessions on pointers, memory management, asymptotic analysis and core data structures (linked lists, stacks, queues, hash tables, trees, heaps, graphs).
- Debug C programs and coach testing/performance; resolve segmentation faults and memory leaks using gcc, gdb and valgrind; provide mentorship on debugging strategies in study teams.
- Teach weekly sections to strengthen student problem-solving skills and deepen understanding of core programming concepts.

Mu2e Experiment (Demers' Group & Fermilab), *Research Assistant*, Batavia, IL & remotely April 2025 – Present

- Generalize the Calorimeter-seeded pattern recognition algorithm to account for non-electron particles at relativistic speeds.
- Utilize Python and C++ to evaluate and refine high-performance computational code.

Deloitte, *Financial Advisory Intern*, Tirana, Albania May 2025 – August 2025

- Collaborated with a five-member project team to gather and analyze market information on Albania and Central Europe, interviewing stakeholders, synthesizing regulatory updates, and developing perspectives that guide clients' recommendations.
- Developed financial models and forecasts for local and regional companies, helping the team identify and assess growth and risk factors.

iKUB Info, *Software Engineering Intern*, Tirana, Albania April 2023 – July 2023

- Designed system architecture and data models for an object-oriented data management application for a local retailer.
- Delivered new features to production platforms, improving operational efficiency and data accuracy.

ArkIT, *Web Development Intern*, Tirana, Albania September 2022 – November 2022

- Collaborated with other team members to modernize a healthcare company's website, aligning the design with responsive and accessibility standards.
- Led team in charge of the development process of the new homepage, creating wireframes, coding the front and backend, and deploying the finished page to production.

PROJECTS

Yale Dine Tracker

November 2024

- *Description:* An app that allows Yale students to track student flux across dining halls and plan their visits accordingly.
- *Languages used:* Python, SQL, JavaScript
- *Technologies used:* HTML, CSS, Bootstrap, Flask

Appointment Manager

January 2024

- *Description:* An app that allows staff in medical clinics to schedule and handle medical appointments.
- *Languages used:* Java, SQL
- *Technologies used:* JFrame

Physical 4-Bit Adder

October 2023

- *Description:* A device which adds two 4-bit, binary inputs.
- *Main components:* Resistors (22k and 220k), NPN transistors, LED, switches

SKILLS

- *Analytical Skills:* C, Python, Java, SQL, C++, Data Analytics, Web Development, LaTeX, Hypothesis Testing
- *Finance and Business Skills:* Microsoft Suite (Word, Excel, PowerPoint), Financial Modeling, Risk Analysis
- *Language Skills:* Albanian (Native/Bilingual), English (Native/Bilingual), German (Advanced)

HONORS AND AWARDS

- *Silver Medal, 6th International Economics Olympiad, Volos, Greece* July 2023
- *Second Place, 11th National Meeting for Piano Duets, Tirana, Albania* December 2022
- *Competitor, 63rd International Mathematical Olympiad, Oslo, Norway* July 2022

LEADERSHIP EXPERIENCE

Yale Undergraduate Aerospace Association, Director of Events, New Haven, CT

May 2025 – Present

- Identify, organize and promote job fairs, aerospace conferences and professional events beneficial to members.
- Facilitate communication and coordination with the Ivy Space Coalition.

Yale Branch of IEEE, Head Project Manager, New Haven, CT

October 2024 – May 2025

- Collaborated with project leads to allocate resources efficiently and facilitate project success.
- Developed and implemented a project management framework for all projects.

Yale Entrepreneurial Society, Co-Director of Fellows, New Haven, CT

September 2024 – Present

- Assist the executive board in planning and executing organizational activities.
- Provide resources to fellows ensuring they are empowered to pursue entrepreneurial activities on campus.

CERTIFICATIONS

- **Stanford Online Course, Introduction to Mathematical Thinking, Coursera** May 2024 – June 2024
- **MIT Online Course, Basic Circuit Analysis – 6.002.1, edX** June 2023 – August 2023
- **Udemy Course, Complete C# Unity Game Developer 2D, Udemy** July 2020 – September 2020