Boston, MA
United States

Arthur De Belen

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Education

Massachusetts Institute of Technology (MIT)

- **Bachelor of Science (S.B.) in Computer Science and Engineering**   *Sep 2019 - Jun 2023*
  Relevant coursework: *Cambridge, MA*
  Computer Language Engineering; Database Engineering; Formal Reasoning about Programs; Theory of Computation;

- **Masters of Engineering (MEng.) in Computer Science and Engineering**

  Aug 2023 - Aug 2024
  Cambridge, MA

Work Experience

Massachusetts Institute of Technology (MIT)   *Sep 2022 - Dec 2022*
Undergraduate Teaching Assistant, 6.042/6.1200 [Mathematics for Computer Science]   *Cambridge, MA*
- Ran office hours for 4 hours a week, helping students with homework and understanding of concepts.
- Helped write problem sets, and grade midterm and final exams, for 5 hours a week.

Massachusetts Institute of Technology   *Sep 2021 - May 2022*
Grader, 6.046/6.1220 [Design and Analysis of Algorithms]   *Cambridge, MA*
- Graded homework for roughly 20-30 students, for 5 hours a week.

Astranis   *Jun 2021 - Aug 2021*
Flight Software Engineer - Intern   *San Francisco, CA*
- Rewrote portions of a Python/C++ codebase to be more asynchronous.
- Tested changes on both software and mock hardware.

Eta Kappa Nu, Beta Theta Chapter   *Sep 2020 - Dec 2020*
Tutor, 6.042 [Mathematics for Computer Science]   *remote*
- Tutored 3 students, for 3 hours a week.

Research Experience

Massachusetts Institute of Technology (MIT)   *Sep 2023 - present*
Research Assistant, Programming Languages and Verification Group   *Cambridge, MA*
- Continuing work on implementation of compiler optimizations for Bedrock2 (https://github.com/mit-plv/bedrock2), a verified low-level programming language, under supervision of Prof. Adam Chlipala and Samuel Gruetter. Worked primarily with Coq.

Computer Science and Artificial Intelligence Laboratory (CSAIL @ MIT)   *Sep 2022 - Aug 2023*
Undergraduate Researcher   *Cambridge, MA*
- Worked on implementation of compiler optimizations for Bedrock2 (https://github.com/mit-plv/bedrock2), a verified low-level programming language, under supervision of Prof. Adam Chlipala and Samuel Gruetter. Worked primarily with Coq.

Leadership Experience

MIT Musical Theater Guild (MIT MTG)   *Oct 2023 - May 2024*
President
- Organized weekly meetings to coordinate with 6+ undergrads, grads, and alums on MTG's Exec Board, which supports the logistics needs for putting on a musical theater production twice a semester.

Massachusetts Institute of Technology

Next House Campus Preview Weekend / Residence Exploration Chair

Apr 2020, Sep 2020,
Aug 2021, Aug 2022
Cambridge, MA

- Ran 4 series of 5+ in-person and remote events for welcoming prospective / first-year students to MIT.
- Collaborated planning with a team of 5+ students, managed 10+ volunteers, attended by 10-60 students.

Next Haunt

Sep 2021 - Nov 2021,
Jul 2022 - Nov 2022
Cambridge, MA

- Collaborated planning with 5+ students in implementing puzzles for annual student-run escape room/haunted house hybrid visited by roughly 100+ students per year over the course of 2 weekends.

Skills Summary

- **Programming Languages**: Proficient in Go, Python, C++, Java, Coq; familiar with Rust, OCaml, C
- **Music**:
  - Performed in a community choir for 2 semesters and with an *a capella* group (the MIT Asymptones) for 1 semester.
  - Performed in the MIT Musical Theater Guild's summer 2023 production of *The Fantasticks*, for 6 shows, over the course of 3 weekends.
  - Performed in the MIT Musical Theater Guild's fall 2023 production, "Best of All Possible Worlds: A Cabaret Night", for 3 shows, over the course of 1 weekend.