

# Arthur De Belen

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## WORK EXPERIENCE

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### Verisk Extreme Event Solutions

**Feb. 2025 - Present**

*Software Engineer I*

*Boston, MA*

- Feature development for a SaaS product that receives thousands of API requests monthly.
- Improved and update performance testing framework covering hundreds of cases.
  - **Stack:** C#; Python; NuGet; Amazon Web Services (ECS, EC2, CloudWatch, Glue, Athena); Azure Pipelines; SQL

### MIT Programming Languages and Verification Group

**Sep. 2022 - May 2024**

*Graduate Research Assistant | Sep. 2023 - May 2024*

*Cambridge, MA*

- Explored specification of vector assembly instructions in Haskell and Coq.

*Undergraduate Research Assistant | Sep. 2022 - May 2023*

*Cambridge, MA*

- Implemented compiler optimizations and proofs of correctness in the Bedrock2 language, a low-level research language.
- Achieved a 50% reduction in assembly instructions for certain source-level constructs.

### Astranis

**Jun. 2021 - Aug. 2021**

*Intern, Flight Software Team*

*San Francisco, CA*

- Restructured power management code to minimize impact of recovery mechanisms for component failures.
  - **Stack:** C++11, Python

## EDUCATION

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### Massachusetts Institute of Technology

**Sep. 2024**

*Bachelor of Science (S.B.) & Master of Engineering (Meng.), Computer Science and Engineering*

*Cambridge, MA*

- **GPA: 4.9/5.0**
- President, [MIT Musical Theater Guild](#) (2023-2024); Puzzle Team (2021-2022), [Next Haunt](#) (escape room-designing club)

## CERTIFICATES & INTERESTS

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- **Certificates:** AWS Certified Cloud Practitioner (September 2025)
- **Interests:** Theater (musical and non-musical), board games, formal verification