

# Henry Barthelemy

Available: January – September 2024 | Pronouns: he/they

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## Education:

**Northeastern University**, Boston, MA

September 2021 – April 2025

Khoury College of Computer Sciences

Candidate for Bachelor of Science in Computer Science and Mathematics, Expected April 2025

GPA/Honors: 3.71/4.00

Relevant Courses: Graduate Algorithms | Object Oriented Design | Linear Algebra | Theory of Computation

## Technical Knowledge:

**Languages:** Java, Python, C#, JS, HTML/CSS, Lean

**Systems:** Windows, macOS, Ubuntu Linux

**Technologies/IDEs:** Eclipse, Git, Visual Studio Code, Unity, AWS, React.js, React Native

## Related Work Experience:

**Software Engineering Co-op**

January – June 2023

*PhAST Diagnostics, Boston, MA*

- Created a backend system using a Java AWS Lambda which dynamically scales EC2 instances based on the queue size, ensuring optimal resource utilization with 75-95% of the EC2 instances consistently occupied
- Integrated a Python program seamlessly into the workflow which organized microscope images into easy-to-read pdf pages from their metadata
- Upkept a C# front-end GUI interface and Java back-end to automate microscopic lab work

**Undergraduate Teaching Assistant**

May – December 2022

*Khoury College of Computer Science at Northeastern University, Boston, MA*

- Held office hours, led exam review sessions, and graded exams and assignments for Fundamentals of Computer Science 2 (Summer 2022, Fall 2022).
- Provided helpful feedback to students by reviewing their code and explaining core class concepts such as utilizing object-oriented design, abstracting code, writing unit tests, and analyzing runtimes

**Assistant Director and Head Computer Science Instructor**

June 2019 – August 2021

*Robotics and Beyond, New Milford, CT*

- Prepared lesson plans, developed schedules adapted to accommodate pandemic learning, and taught groups of 5-15 students aged 8-15 in various Computer Science topics including Arduino, Python, and Java

## Personal Projects:

**Quizler** – React Native, VS Code

May 2023

- Made an app using React Native which pulls from Open Trivia DB API to give users random questions on their chosen category

**Cactus Study** – React.js, Chakra UI, Fast API

February 2023

- Developed a webapp using React.js and Chakra UI for the front end with a Fast API python backend and presented as a top 10 project at Hackbeanpot 2023 in front of the over 200 participants

**Image Processing** – Java, Java Swing, AWT Library, IntelliJ (available upon request)

June 2022

- Created an app which uses Model-View-Controller setup and allows users to edit images they import through various commands. Includes options to save and import with PPM, BMP, JPG, and PNG

**Personal Website** – Bootstrap, CSS, HTML, Visual Studio Code

January 2022

- Developed Personal Website using Bootstrap for seamless front-end design on multiple devices
- Hosted using GitHub at <https://henrybarthelemy.github.io/>

**Interests/Other Skills:** Trilingual (English/French/Spanish), Northeastern (NU) Math Club, NU Competitive Programming, NU Cheese Club, Guitar/Piano