

# Matej Macula

Boston, MA | +1 (857) 286-8111 | macula.m@northeastern.edu | github.com/bohmatej | linkedin.com/in/matejmacula | matejmacula.com  
Availability: July - December 2026

## EDUCATION

---

**Northeastern University** - Khoury College of Computer Sciences

Boston, MA

*Candidate for Bachelor of Science in Computer Science, Minor in Math*

*Expected May 2028*

*Dean's List x2 (GPA 3.92/4.00)*

**Coursework:** Algorithms and Data, Logic and Computation, Theory of Computation, Object-oriented Design, Computer Systems, Intro to Legal Reasoning, Intro to Statutes and Regulations, Intro to Cybersecurity, Linear Algebra, Statistics and Probability, Seminar in Artificial Intelligence

## TECHNICAL SKILLS

---

**Languages:** Python, Java, JavaScript, OCaml, HTML/CSS, C, x86-64 AT&T Assembly

**Frameworks & Data:** Flask, Bootstrap, SQLite, Pandas

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

**Text Editors/IDEs:** Visual Studio Code, JetBrains IDEs, Eclipse, Vim

**Developer Tools / Misc:** HTTP, Git, GitHub

## PROJECTS

---

**Brownfield Rezoning AI Model (InnovAlte 2025)**

Boston, MA

*Python (TensorFlow, Pandas)*

*Feb 2025*

- Prototyped a program that uses a neural network for brownfield rezoning to optimize land use, demonstrating knowledge in Pandas, TensorFlow and Keras frameworks
- Streamlined training data from a variety of sources, resulting in a model that was over 60 percent accurate in predicting how former brownfields were rezoned
- Developed teamworking skills with students across fields of study, gaining insight into the role of AI in business and urbanism

**MHDle**

Bratislava, Slovakia

*Python (Flask), JavaScript, HTML/CSS, SQL*

*Aug 2023 - Mar 2024*

- Developed a guessing game based on Bratislava's public transport network for a
- Implemented a procedural recursive route generator, custom route generation settings, a private database for users, a public database for route data, and an intricate admin portal to update routes as needed
- Focused on UI/UX design for different kinds of users while maintaining a secure backend, attaining improved understanding of web development and cybersecurity
- Strengthened understanding of web infrastructure through practical use of Flask, Jinja, HTTP protocols, and asynchronous programming for user request handling.

## WORK EXPERIENCE

---

**Teaching Assistant - Program Design and Implementation 1**

Boston, MA

*Northeastern University*

*Sep 2025 - Dec 2025*

- Hosted office hours for an intermediate Python course with 393 students across two Northeastern campuses
- Troubleshooted students' technical difficulties and general questions about course material, covering broad Python concepts including algorithms, data analysis, class-based design, and unit testing
- Communicated troubleshooting advice and other challenges faced by students to instructors and other TAs, providing course feedback and preparing for similar situations in the future
- Instructed students while leading weekly lab sessions with a 40 student class size, guiding them to quality code design
- Graded students' assignments, utilizing judgment skills to provide fair assessment and feedback

## INTERESTS

---

**Hobbies:** Traveling, Urbanism, Board Games, Skiing, Music, Cardistry