Hazem Algendy

algendy.h@northeastern.edu | 857-300-9904 | Boston, MA
halgendy.com | linkedin.com/in/halgendy | github.com/halgendy

EDUCATION

Northeastern University | Boston, MA — **May 2027 (Expected)**
Candidate for Bachelor of Science in Computer Science

Honors: **Dean's List | 3.8/4.0 GPA**
Coursework: Object-Oriented Design, Algorithms & Data, Computer Systems, Data Science Foundations, Cybersecurity Foundations, Database Design, Computer Science Fundamentals I & II

TECHNICAL SKILLS

Programming Python, Java, Lua, JavaScript, TypeScript, SQL, HTML, CSS, React, C, C++, C#, x86
Technology Git, NumPy, Pandas, PyTorch, CUDA, Matplotlib, Seaborn, SciPy, MongoDB, Blender
Environment JupyterLab, PyCharm, VS Code, Eclipse, IntelliJ, Unity, Godot, Roblox Studio, Linux

WORK EXPERIENCE

Harvard Medical School — **Jun 2022 – Oct 2022**
Data Design Intern — *Spaulding Rehabilitation, Motion Analysis Lab*

- Processed motion data to train ML models for exoskeletons, improving stroke recovery time
- Leveraged **Matplotlib**, **Pandas**, and **NumPy** to analyze data trends, identifying inefficiencies
- Edited anonymized videos into a clear format, improving **data analysis** and documentation of research
- Recommended sensor restructuring to Harvard and UMass Amherst professors, modifying sensor placement strategies to reduce gaps in limb data, increasing gait prediction accuracy of the **ML models**

PROJECTS

Self-Revising Chatbot — **Mar 2024**
MimicGPT — *Next.js, TypeScript*

- Developed a **full-stack** AI assistant integrating OpenAI function-calling and ElevenLabs voice synthesis
- Optimized **RESTful API** responses with self-correcting revisions, improving reliability of cheap models
- Designed event-based file analyzer that delegates to a specialized summarizer, extracting writing style
- Engineered a persistent chat history **datastore** with multi-file uploads used in queries to MimicGPT

Crime Cleanup Game — **Sep 2024 – Dec 2024**
Mop Boss — *Godot Engine, GDScript*

- Led a team of **8 developers** to invent a 3D game with support for multiple players by the semester's end
- Emphasized **scalable** and organized systems that facilitated our ability to procedurally generate scenes
- Unveiled demo **on schedule** at Northeastern Fall Games Showcase, engaging playtesters and organizers

Massively Multiplayer Game — **Aug 2020 – Jul 2021**
Speed Simulator — *Roblox Studio, Lua*

- Engineered an efficient datastore for dynamically managing and displaying player points on a leaderboard
- Drove over **46M+** visits and millions of play hours with a scalable server-client architecture
- Designed and implemented unique monetization strategies, leading to over **$10,000** in revenue