

Marcos Johnson-Noya

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Education

HARVARD UNIVERSITY

2022 - Present

GPA: 3.7

BS/MS, Computer Science

Relevant Coursework: Systems Programming and Machine Organization, Probability, Vector Calculus and Linear Algebra, Data Structures and Algorithms, Introduction to Theoretical Computer Science, Computing at Scale, Advanced Computer Networks

LARAMIE HIGH SCHOOL

2017 - 2022

ACT: 36, GPA: 4.0

Relevant Coursework: Combinatorics and Graph Theory, Differential Equations

Technical Skills

PROGRAMMING: C, C++, Python, Lisp, JavaScript, CSS

OTHER: TensorFlow, PyTorch, Django, Bootstrap, SciPy, Azure, PostgreSQL

Experience

HARVARD BLACK HOLE INITIATIVE

2023 – Present

- Led an undergraduate team to develop a [physics-informed neural network](#), enhancing the understanding of accretion disks surrounding black holes.

HOFFMAN LAB

2022 – Present

- Implemented a [compressed sensing algorithm](#) in Python to reconstruct comprehensive grid maps from sparse samples in Scanning Tunneling Microscopy (STM).
- Contributed to an [open source python-based data analysis package](#) for STM data, by improving and expanding data visualisation options and documentation.

Independent Projects

COMPUTER SCIENCE & ENGINEERING

- Developed an [extension](#) using JavaScript and browser APIs to selectively block YouTube UI elements based on user preferences, enhancing focus and reducing distractions.
- Crafted a [personal website](#) using Django, featuring a feedback form inspired by Sendit and a dynamic quote display, managed via Django's admin interface.

Language Skills

LANGUAGES: Fluent Spanish and English