Mahfuj Mustafa

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EDUCATION

High School of Arts and Technology, New York, NY Class of 2027

- Cumulative average 82.96 (weighted); junior spring 89.46, my strongest term
- AP exams: Computer Science Principles 4, Precalculus 4, US History 4

Borough of Manhattan Community College, FutureReady NYC dual enrollment Sep 2025 to May 2027

- CSC 101 Principles of Information and Computer Science, grade 100 (junior spring); AP Computer Science A in progress

EXPERIENCE

Programmer, Live Operations, Merge Box Feb 2024 to Aug 2026 | ~15 hrs/week

- One of five developers on Roblox games with more than 78 million combined visits
- Ran the weekly live update: debugging, patching exploits, adding gameplay mechanics and checking server performance

Freelance Programmer, self-employed 2021 to Aug 2026 | ~6 hrs/week

- Built REST APIs, custom Discord bots, marketplace tools and full Roblox games for more than 100 clients; scoped each job and maintained it after launch

RESEARCH AND PROJECTS

Independent Researcher, diffusion-model perception study Jun 2026 to present | ~10 hrs/week

github.com/stafawashere/psychedelic-model-research

- Drove a Stable Diffusion model in PyTorch with only knobs mapped to brain variables such as sensory precision and cortical gain, to test whether the visual sequence reported in DMT research (geometry, then forms, then figures) emerges without hand-drawing
- Fixed metrics and pass/fail thresholds before running; periodic power rose to 3.0x a natural image's spectrum vs 1.6x at baseline, then returned (RMSE 0.025)
- Writing it up as a paper with a public DOI, including the results that failed

Security Researcher, Allusion Jul 2025 to Mar 2026 | ~10 hrs/week

github.com/stafawashere/Allusion

- Found six exploits in the anti-cheat, combat and rendering code of Rivals, a Roblox shooter
- Reported each to the developers with a server-side fix; all were patched before the research went public

Author, Disky (open source) May 2024 to present

- Python library for Discord written from scratch over raw WebSockets and HTTP; handles connection, heartbeat, reconnects and sessions, and parses 57 event types

Full-Stack Developer, Distribution Network Mar 2026

- Next.js, TypeScript, Prisma and PostgreSQL platform with separate portals for distributors and resellers: inventory, bulk pricing tiers, sales approval and a revenue dashboard

Lead Programmer, Trashy Apocalypse (AP CSP team) May 2026

- Wrote the code for a Python Arcade zombie shooter with a layered audio engine and saved high scores; the school's entry in its arts event

Developer tools and smaller projects Feb 2026 to present

- webapp-re: Claude Code plugin that finds the private API behind a signed-in web app and builds an automation program for it, holding every data-changing call for approval
- Inspect Workflow, a viewer that follows live Claude Code transcripts over SSE; Taskbench, a VS Code extension for team shell tasks
- Spicetify extensions: profiled the Spotify client over DevTools and cut an animation from half a CPU core to 13%
- Sujood (sujood.online): walkthrough of the eight positions of salah with Arabic, transliteration and recitation audio; Ledger, a Discord bot for balances and inventory

LEADERSHIP AND SERVICE

Security Analyst, NYC DOE Workplace Challenge with LinkNYC Mar to Apr 2026

- Six-week team project securing public Wi-Fi across more than 1,700 kiosks; ranked threats P0 to P3
- Built a five-layer defense benchmarked against NIST, ISO 27001, IEC 62443 and OWASP IoT, wrote incident-response playbooks and presented to an industry stakeholder

Associate Member, MUNA Manhattan Youth Sub-Chapter 2022 to present | ~4 hrs/week

- Plan weekly youth gatherings with the chapter president, run monthly events and record donations
- Mentor 20 younger members; helped renovate the chapter's first Manhattan masjid before its opening for 50+ people

Family responsibilities ongoing | ~15 hrs/week

- Handle English-language paperwork for a Bengali-speaking household: taxes, work filings, medical appointments, lease and bills; care for a younger brother and grandmother

SKILLS

Languages: Python, TypeScript, JavaScript, Lua (Roblox), SQL
Tools: PyTorch, Stable Diffusion, React, Next.js, Node.js, Express, Prisma, PostgreSQL, SQLite, Socket.IO, Tailwind CSS, Git
Areas: reverse engineering, game security and anti-cheat, WebSocket and REST APIs, computational experiments on perception
Languages spoken: English, Bengali (fluent)