

Damiane Kapanadze

+1 646 508 3779 | dk4770@nyu.edu | [LinkedIn](#) | [GitHub](#) | [Portfolio](#) | New York, NY

EDUCATION

New York University Abu Dhabi

BSc, Electrical Engineering

Aug 2023 – May 2027

New York, NY & Abu Dhabi, UAE

- GPA: 3.96 / 4.00
- Relevant coursework: Advanced Digital Logic (FPGA), Computer-Aided Design (SolidWorks), Advanced Circuits (Cadence), Engineering Materials, Linear Algebra, Ordinary Differential Equations, Design and Innovation.

RELEVANT EXPERIENCE

nyuad.space

Structures and Mechanical Engineer

Sep 2024 – Jun 2025

Abu Dhabi, UAE

- Designed and implemented a redundant Staged Release Mechanism ([SRM](#)) for model rocket staging using CAD (Onshape) and FEA simulations.
- Produced detailed engineering drawings and coordinated with manufacturers to fabricate precision components.
- Applied DFMA principles to optimize assemblies for reliability, manufacturability, and cost.
- Launched successfully at the International Rocket Engineering Competition ([IREC](#)) in Midland, Texas.

Georgian State Electrosystem

Intern, Balancing and Ancillary Services Market Management Department

Jun 2024 – Aug 2024

Tbilisi, Georgia

- Completed cross-training with the SCADA engineering team and visited the Gardabani power plant during system upgrades, learning about control and monitoring of large-scale power infrastructure.
- Attended trainings on the design and operation of Georgia's Balancing and Ancillary Services Market, gaining in-depth knowledge of market mechanics and grid integration.

Firelink

Lead Engineer

Mar 2022 – Nov 2022

Tbilisi, Georgia

- Led development of [Firelink](#) | Autonomous drone system for wildfire detection using Python, OpenCV, ArUco markers, and Arduino, integrating automation with a custom Arduino-powered landing pad.
- Tested and refined auto-navigation system, earning **2nd Place** in Georgia's national innovation competition.

FIRST Global Challenge, Georgia

Lead Engineer & Organizer

Jun 2021 – Aug 2023

Tbilisi, Georgia

- Co-designed and built a competition robot with ball storage, launching, and scoring subsystems. (2021 - 2022)
- Taught robotics fundamentals, mentored new competitors, and organize the national qualifying competition.

OTHER EXPERIENCE

NYU Abu Dhabi

Math Tutor, Academic Resource Center

Jan 2024 – May 2025

Abu Dhabi, UAE

- Delivered one-on-one tutoring in precalculus, calculus, linear algebra, and multivariable calculus.
- Used the Socratic method to guide students toward solutions through structured questioning.

PROJECTS

Interactive Book | Interactive Georgian children's book made in Unity to teach reading to elementary school students

Rider's Quest 🏹 VR archery game in Unity for Meta Quest 2, developed as a freshman programming course project

SKILLS

Engineering: CAD (Onshape, SolidWorks), DFMA, FEA (structural), PCB Design, Circuit Simulation (Cadence)

Programming: FPGA (VHDL), Python, MATLAB, C++, C#, Arduino