

Athanasia Nikolova

Veria, Greece | nasia.nikolova@mtel.gr | [Latest Version](#) of Resume

<https://www.nasianikolova.com> | <https://www.linkedin.com/in/nasianikolova> | <https://github.com/nasianikolova>

Education

International Schooling

High School Student 12th grade in American curriculum

Singapore (Remote)

Aug 2025 – Present

- **Scientific Orientation.** Calculus Honors, Procedural Programming, Physics, English IV, Data Analytics & Database Design, Chemistry.
- Completed 11th grade in July 2026 with **GPA 4.0/4.0**.
- Completed 10th grade in January 2026 with **GPA 4.0/4.0**.

Alexandrio 2nd Junior High School of Veria

Junior High School Student 9th grade in Greek curriculum

Veria, Greece

Sep 2024 – Jun 2025

- Excellence Awardee as the Top Student of the class for 9th grade with **GPA: 20/20**
- Served as the President of the class (elected with 60% of the votes)

Independent Education

MIT xPRO (Delivered via Emeritus)

Professional Certificate in Coding: Full Stack Development with MERN

Online

Nov 2025 – Jun 2026

- 26 weeks intensive professional education, 20 hours per week, awards 48 CEUs. ([Certificate Link](#))
- Final course grade: 100%
- Full stack web development program that equips me with the in-demand skills to work with JavaScript, React, Node.js, MongoDB, and Next.js.
- Capstone: Next.js and PostgreSQL invoices dashboard with authentication, server-side validation and a settings module beyond the course material. ([GitHub](#))

Python Institute

Self-Paced Education

Online

Dec 2024 – May 2025

- PCEP – Certified Entry-Level Python Programmer (PCEP-30-02) ([Certificate Link](#))
- PCAP™ – Certified Associate Python Programmer (PCAP-31-03) ([Certificate Link](#))

Udemy

Self-Paced Education

Online

Jul 2024 – Sep 2024

- Autodesk Revit – Beginner to Advanced Level ([Certificate Link](#))

Work Experience

MTEL. Family-owned telecommunications company

Part-time 3D Designer (2h/day)

Veria, Greece

Aug 2025 – Present

- Design parts for the Kirineos Data Centre in SolidWorks: raised floor feet, antivibration mounts, piping, formwork and pipe clamps. STEP files go to external fabricators; the parts are made and installed on site.
- Converted an unused office into a 3D design and printing lab; design work previously outsourced to external firms is now done in-house.
- Print 3D prototypes and present them to the Kirineos project manager
- Drawings and STEP files: ([My website](#))

Astrophysics & Research

Horizon Academic Research Program (HARP)

F A R O S: Multistrom Cluster of Satellites

Greece

Dec 2025 – Jun 2026

- **Topic.** Design and Simulation of a LEO Communications Backbone for Cargo Transfer. Machine intercommunication through cluster of satellites supported by decentralized backbone in Space. Network simulator in Python with Matplotlib.
- **Benefits.** Automatic Rearrangement, Datacenter in Space, Backwards compatibility, Network for heavy load and near-space traffic management, Countries sharing common goals.
- **Scope.** Safety, Scalability, Speed, Synergy of Space infrastructure.
- **Mentor.** Dr. Nick Koukoufilippas. University of Oxford, Department of Physics, Sub-Department Astrophysics.
- **Research paper.** <https://nasianikolova.com/doc/FAROS.pdf>
- **Publication.** Peer-Reviewed and Published at NHSJS Reports. (<https://nhsjs.com/2026/f-a-r-o-s-multistrom-clusters-of-satellites>)

Summer Programs

EnduroSat Space Challenges

Space Cadet.

Sofia, Bulgaria

July 2026 – Aug 2026

- **Self-balancing cube.** Designed and built the team's complete cube, based on ETH Zürich's Cubli: the frame, the reaction wheels, and the mounting of the circuit boards and batteries. 3D-printed every part and assembled the cube; teammates handled the electronics and programming.
- **Frame design.** Designed an open frame with members rotated at 45°, adapted from the roof framing of very old Orthodox churches in Greece. The light frame left room for heavy reaction wheels, so the cube could balance on one corner.
- **People.** At 15 years old, I took part and worked alongside Master's and PhD students from around the world.
- **Lectures.** PhD, CEOs, and Space experts were daily our lectures. From New-Space and Orbital Mechanics to Space Law, and Quantum Communications to Extraterrestrial Life. Rocket Science, and Business Management along with AI in Space, and Space Hardware with embedded systems, and Python Simulations based on Numerical Methods.

Cassini Space Camp #EUSpace.

Student and Researcher

Thessaloniki, Greece

June 2025 – July 2025

- **CubeSat Project.** Designed, assembled an 8U CubeSat model, and planned a hypothetical mission, including launching and EOL. Cooperated with colleagues to program it in C++.
- **Activities.** Special course from American Farming School about methods of hydroponics in space. Observing with Reflecting telescope. I learnt how to piece together a telescope, and how to use it; recognizing constellations to guide myself. Classes from university professor in space science and entrepreneurial innovation in space.
- **Motivation.** The sparking of my journey to astrophysics. Peoples' embracement on my entrepreneurial idea SpaceInClass to incorporate spaceLabs in school curriculum motivated me to continue exploring.
- **Letter of Recommendation.** <https://nasianikolova.com/doc/LoRNoesis.pdf>

Skills & Interests

Programming languages: Python, JavaScript (ES6), SQL, HTML/CSS, C++ (basic)

Web development: React, Next.js, Node.js, Express, REST APIs, Bootstrap, Stripe

Databases: PostgreSQL, MySQL, MongoDB; relational database design

Scientific computing: Python simulation of satellite networks; NumPy, Matplotlib; graph algorithms (Dijkstra); Plotly

Tools: Git/GitHub, Linux, LaTeX

Mechanical design: SolidWorks (parts, assemblies, manufacturing drawings, STEP export), Autodesk Revit, FreeCAD, TinkerCAD.

Fabrication and hardware: 3D printing for prototyping; soldering and basic electronics

Networking: IP networking fundamentals (coursework and hands-on work at MTEL)

Language: Full Professional Proficiency in English, limited German, Native in Greek

Hobbies: Juggling (four balls daily), Painting with acrylics.

Sports: Swimming (Competitive until 2025)

Interests: Space systems, satellite communications, photonics, mathematics, entrepreneurship

Programming Experience

SATwords

Student and Software Developer.

Veria, Greece

Jun 2025

- My first app. Written in Python. Prepare the examinee for SAT vocabulary. I use it daily to test my vocabulary.
- Words are collected by the examinees themselves, along with their corresponding translations and the sentences
- Students find and register words in the app by logging in to their account.
- Examinees can choose the words they want to be tested on and, after each test, receive immediate feedback on any mistakes.
- Examinees will be able to independently verify whether they have properly learned the new words they recently encountered.
- In this program I used Python, Tkinter, MySQL, RESTful API ([GitHub](#))

Web Development

Venny Systems. <https://venny.systems>

Veria, Greece

Feb 2022

- My very first coding work.
- Me and my brother were responsible for my dad's company website. I developed the frontend side using HTML and CSS, and integrated it with the backend that my brother coded.
- It was a 5-hour family challenge. No external libraries and photos or ready piece of code was allowed. Just Native.
- I had little experience in photo editing. I created a desk office from scratch. I baked some cookies and wrote with melted chocolate "JS", "NodeJS", "HTML", and "CSS". I put my dad's glasses and his laptop. I combined all together and got the perfect home page photo.

Leadership & Activities

- SpaceInClass is the initiative that will construct and equip spaceLabs in 100 experimental schools in Greece.
- SpaceInClass will manufacture all components of space structure by itself in its own factories.
- The company will create live connection between spaceLabs in order to use a new type of education: **distributedMinds** (diagram on <https://nasianikolova.com/doc/distributedMinds.pdf>).
- Some physics and computer science courses may be conducted in spaceLabs by guest professors and researchers from elite universities.

Problematic spots in the city's public walkways in the Municipality of Veria

Veria, Greece

Community Improvement Initiative. Team Leader. Volunteer.

Jan 2025 – May 2025

- As president of the class, I led a student-driven city audit to identify infrastructure and community issues such as damaged sidewalks, poor lighting, ugly graffitied walls, and facilities for people with disabilities such as access ramps at sidewalks.
- Mobilized 20 out of 24 classmates to participate in the project, coordinating tasks, collecting photos of local issues, and keeping everyone engaged.
- Compiled and presented findings directly to the mayor, including documented problem areas and proposed improvements on behalf of local youth.
- Contributed to real municipal changes after the mayor reviewed the report and implemented several fixes.

Swimming

Aris Swimming Team

Greece

Competitive Swimmer

2012 – 2025

- I have been swimming from the age of 2. For the last 4 years, I followed intensive training, 5 hours per day, 6 days per week.
- What I keep from swimming is the sense of competitiveness and synergy. Now, I want to follow this sense in science.
- My best accomplishments in Greek Championship 2024.
 - Macedonian swimming competitions. 2nd place in 1500m freestyle.
 - Ptolemaic swimming competitions. 2nd place in 800m freestyle.
 - Ptolemaic swimming competitions. 2nd place in 400m freestyle.
 - Ptolemaic swimming competitions. 3rd place in 50m backstroke.
 - Greek National Finals (Age-Group 14 years old). 19th place in 50m backstroke.
 - Greek National Finals (Age-Group 14 years old). 4th place in 4 x 100m relay freestyle.