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**Athanasia Nikolova**

# **R E S U M E**

**May 2026**

# Athanasia Nikolova

Veria · Greece | [nasia.nikolova@mtel.gr](mailto:nasia.nikolova@mtel.gr) | [Last Version](#) of Resume  
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## Education

### International Schooling of Singapore

High School Student 11<sup>th</sup> grade in American curriculum

Singapore (Remote)

Aug 2025 – Present

- **Scientific Orientation.** Calculus, Computer Science, Astrophysics, Physical Science, Mathematics.
- Currently, 11<sup>th</sup> grade. I expect to complete 11<sup>th</sup> grade early June 2026.
- Complete 10<sup>th</sup> grade in Jan 2026 with **GPA 4.0/4.0**.

### 2<sup>th</sup> Alexandrium High School of Veria

High School Student 9<sup>th</sup> grade in Greek curriculum

Veria, Greece

Sep 2024 – Jun 2025

- Excellence Awardee as the Top Student of the class for 9<sup>th</sup> grade with **GPA: 20.0/20.0**
- Served as the President of the class (elected with 60% of the votes)

### Massachusetts Institute of Technology xPRO

Independent study

MA, USA (Remote)

Nov 2025 – Present

- **Program.** MIT xPRO Professional Certificate in Coding: Full Stack Development with MERN
- **Duration.** 26 weeks, 20 hours per week, awards **48 Continuing Education Units (CEUs)**
- Full stack web development program that equips me with the in-demand skills to work with JavaScript, React, Node.js, MongoDB, and Next.js.

### Python Institute

Independent study. Self-Paced.

Remote

Dec 2024 – May 2025

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

## Skills & Interests

**Programming:** Around 50k lines of code, JavaScript ES6, Python, ExpressJS, NextJS, NodeJS, HTML, CSS, React, Bootstrap, JSON, MySQL, MongoDB, Rest API, VS Code, GitHub, Stripe, Linux, LaTeX.

**3D design:** SolidWorks, Autodesk Revit, FreeCad, TinkerCAD, GIMP

**Language:** Full Professional Proficiency in English, Native in Greek

**Hobbies:** Juggling, Watching Movies, Robots and Rockets Assembly.

**Sports:** Swimming

**Interests:** Space, Constructions, Rockets, Mathematics, Entrepreneurship

**Arts:** Painting with acrylics

## Astrophysics & Research

### Horizon Academic Research Program (HARP)

Greece

F A R O S: Autonomous Multistrom Cluster of Satellites with Dynamic Rearrangement

Dec 2025 – Present

- **Topic.** Design and Simulation of a LEO Communications Backbone for Cargo Transfer. Machine intercommunication through cluster of satellites supported by backbone. Centralized communication between machines with IoT technology. Network simulator in Python with Astropy.
- **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/FAROS.pdf>

## Cassini Space Camp #EUSpace.

Thessaloniki, Greece

Student and Researcher

Jun 2025 – Jul 2025

- **CubeSat Project.** Designed a 3D CubeSat model and planned a hypothetical mission, including launching and EOL. Cooperated with colleagues to assembly a CubeSat and program it in C++.
- **Comets SpaceLab.** I was trained to calculate when Didymus and Dimorphos will collide with Earth. I was educated in satellite and comet detection through a specially designed application.
- **Activities.** Special course from American Farming School. AFS professors taught us methods of hydroponics in space. Observing with Reflecting telescope. I learnt how to piece together a telescope, and how to use it. Recognizing constellations, and how to use them to guide ourselves. 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/LoRNoesis.pdf>

### *Programming Experience*

#### SATwords

Veria, Greece

Student and Software Developer.

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 login in 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

#### SolidWorks and Revit

Veria, Greece

3D designer. Intern. 2h/day

Aug 2025 – Present

- SolidWorks: Internship as 3D designer for MTEL in **Kirineos Data Center** project. From this experience I understood how important specialized knowledge is. I designed parts such as raised floor foot, antivibration mount, and angled profile. I sent STEP files to factories; components are produced and used in the project.
- Revit: I completed with 100% the Autodesk Revit – Beginner to Advanced Level.
- Teaching myself to acquire expertise. Taking advantage of wide compatibility of SolidWorks and Revit in production companies to produce professional components that support SpaceInClass.

#### Web Development

Veria, Greece

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

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 <https://spaceinclass.com>

Thessaloniki, Greece

Idea based on my experience from Cassini space camp 2025

Jul 2025

- Space In Class is the company that will construct and equip spaceLabs in 100 experimental schools in Greece.
- Space In Class 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/SpaceInClassDistributedMinds.jpg>).
- 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 graphed walls, and facilities for people with disabilities such as access ramps at sidewalks.
- Mobilized 20 out of 25 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 – Present

- I swim 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. 2<sup>nd</sup> place in 1500m freestyle.
  - Ptolemaic swimming competitions. 2<sup>nd</sup> place in 800m freestyle.
  - Ptolemaic swimming competitions. 2<sup>nd</sup> place in 400m freestyle.
  - Ptolemaic swimming competitions. 3<sup>rd</sup> place in 50m backstroke.
  - National Finals. 19<sup>th</sup> place in 50m backstroke.
  - National Finals. 4<sup>th</sup> place in 4 x 100m relay freestyle.