

Necla Duru Özmal

18-year-old aspiring computer scientist and entrepreneur from Istanbul, Turkey, specializing in unconventional computing methods ranging from bio-inspired algorithms to quantum computing models. She is the founder of Quanta & BioSense

Awards & Recognitions

Moonshot Awards Finalist

October 2025

- One of the top 15 finalists for the Moonshot Awards 2025 in AI for Good Category

FRC Dean's List Award Finalist

March 2025 - Istanbul Regional

- One of the two finalists selected per region to represent their team at the championship at Houston. Recognition for outstanding student leaders in FRC who demonstrate exceptional technical expertise

Gracious Professionalism Recognition

2025 - Houston FRC Championship

- One of the two Turkish students who was awarded this recognition at FIRST Championship Houston 2025, for demonstrating FIRST core values of encouraging high-quality work.

TUBITAK National Science Fair Semi-Finals February 2025

- Developed a MATLAB-based Slime Mold Algorithm (SMA) for optimizing Istanbul's public transit routes. Selected among 1,200 finalists out of 22,586 applications in the 56th High School Students Research Projects Regional Competition.

Intermediate Biology Olympiad Silver Medallist 2025

Certificate of Honor

June 2023 - Saint Benoît French High School

- Awarded to one student each year in the grade, recognition for exemplary work in school

Diana Awards Nominee 2025

- I have been nominated for The Diana Award 2026, one of the most prestigious global recognitions for young changemakers.

Academic Programs

Research Associate - Stanford University

- Actively conducting research in collaboration with a Research Scholar and Senior Teaching Fellow Coordinator at Stanford University - Reference: marek.miltner@stanford.edu

Stanford CS101: Computer Science 101 (edX) September 2025

Pioneer Research Institute- Quantum Computing Spring-Summer 2025

- (%75 Scholarship)
Conducted research on "Effects of Orbital Localization Methods on Quantum Fragmentation and Embedding Accuracy" - Reference: brenda_rubenstein@brown.edu

Education

Saint Benoît French High School

(Istanbul/Turkey)

2021 – 2026 | GPA: 93/100

Standardized Test Scores

- SAT 1540** (English: 740, Mathematics: 800)
- AP Physics C: Mechanics: 5**
- AP Statistics: 5**

Language Proficiency

- English | **IELTS: 8.0** (October 2025)
- French | **DALF C1: 71/100** (May 2025)

Contact

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 [my website!](#)

Skills

- Programming Languages: Python, Java
- IBM Qiskit
- MATLAB
- Microsoft Azure - Q#
- CAD Design

Volunteering

Volunteers of Saint Benoît 2021-2025

- Organized STEM education programs for public school students in Istanbul - reached out to more

Kadir Has University

- **Introduction to Quantum Mechanics** (Certificate of Outstanding Achievement) June 2025
- **Academic Teaching Assistant of Prof. Nihat Berker** (former MIT Professor)
Reference: anberker@mit.edu

Stanford University Pre-Collegiate Summer Institutes July 2023

- Selected for the highly competitive AI course under Prof. Wallhagen - Partial Scholarship

Reference: morganw1@stanford.edu

Projects & Leadership

FRC Robotics Club Team Captain

- 2024-2025 FRC Team Captain
- 2023-2024: First Female Coding Team Captain in team history
- 2022-2023: Regionals (Coding Team Member)

Founder of BioSense 2025

Status: Patent Pending

- BioSense is an Early Earthquake Warning system that harness the remarkable intelligence of Physarum polycephalum (slime mold) by deploying an advanced network of sensors optimized through SMA-inspired algorithms that continuously adapt their configuration and sensitivity. Transforming earthquake response from reactive to predictive when every second can save lives.

Founder of Quanta 2023-2025

- Quanta is a Rotary-sponsored initiative with a mission to provide Quantum computing education to young women in STEM from Turkey. It's the first platform to give quantum education for Turkish students in Turkish. Where we reached out to over 1.000 students collaborating with local institutions.
 - **Qubit by Qubit Outreach Ambassador**
 - Selected as Turkey's Quantum Ambassador to promote quantum computing education in underrepresented communities.

TEKNOFEST Fighting UAV Competition Team Co-Captain 2023-2024

Experience

Anadolu Isuzu Automotive Industry and Trade Inc. 2025

- (+300 hrs) Software and Cyber Security Department. I got experience on projects involving software development, system security analysis, and network monitoring

Ithinka Informatics Software Consulting Services Inc. Winter Term Intern (December 2023)

- Gained hands-on experience in Java programming and basic electronics.

Igea&Sual Hub Internship Summer Term Intern (July-August 2024)

- Collaborated with multidisciplinary teams on technology commercialization projects and conduct comprehensive research on emerging technologies in quantum computing and bio-inspired systems.

than 1.000 students from Ahmet Emin Yalman public school.

TEGV 2023-2025

- Volunteer at the Educational Volunteers Foundation of Turkey

Rotary 2025

- Volunteer at Tophane Rotary Club

Erasmus+ Project 2022-2024

- Translated Erasmus+ 'My Herit' project proposal to english and taught Scratch coding to younger students.

School

Head of "SB Paroles" 2021-2025

- Redaction of monthly school paper, written 30+ articles in turkish, english and french from poetry to tech corner articles

Reading Club 2023-2025

- Read one book and discussed together (sometimes with the writers as well) each tree months

Philosophy Readings Club 2022-2024

- Organizing philosophy gatherings in francophone schools five times each year, reading and discussing

School Ceremony Commitee 2021-2025

- Organizing ceremonies reflecting national pride during holidays