Full Name **IOANNIS TZACHRISTAS**

Date of Birth 11.06.2001

Birthplace Ioannina, Epirus, Greece

Address Riesstrasse 25, 80992, Munich, Bavaria, Germany

Mobile +30 6980228092, +49 1707410323

e-mail [jtzach@gmail.com](mailto:jtzach@gmail.com) , [ioannis.tzachristas@huawei.com](mailto:ioannis.tzachristas@huawei.com) ,

[ioannis.tzachristas@tum.de](mailto:ioannis.tzachristas@tum.de)

ORCID <https://orcid.org/0009-0007-0523-2889>

Google Scholar <https://scholar.google.com/citations?user=7p_28KEAAAAJ&hl=el&oi=ao>

arXiv <https://arxiv.org/search/cs?searchtype=author&query=Tzachristas%2C+I>

**EDUCATION**

**09/2024 - present PhD candidate at the**

**Chair of Transportation Systems Engineering,**

**School of Engineering and Design,**

**Technical University of Munich (TUM), Germany**

PhD topic:

“Privilege Management of LLM-based AI-agents and Applications in Transportation Systems”

supervised by **Prof. Constantinos Antoniou – TUM**

co-supervised by **Dr. Aifen Sui – Huawei Munich Research Center**

**09/2019 – 07/2024 M.Sc. & MEng. at the**

**School of Electrical and Computer Engineering,**

**National Technical University of Athens, Greece**

**(ECE-NTUA Diploma in Electrical and Computer Engineering)**

* + - * ***GPA 9.02/10.00* (Excellent)**
      * ***Master’s Thesis Grade 10.00/10.00* (Excellent)**

<http://artemis.cslab.ece.ntua.gr:8080/jspui/handle/123456789/19180>

* + - * Member of “NTUA Microprocessors Laboratory & Digital Systems Laboratory”

(recent projects: Alarm with password and smoke detector, Oscilloscope)

* + - * Selected representative student at “ECE external evaluation & accreditation” (February 2021)
      * European Workshop on Distance Learning "What is the New Normal in Distance Learning in European Universities"
      * Attended Seminar on Applied and Industrial Mathematics – FEMO
      * Attended “Research Challenges in Computer Science” (CoReLab & CSLab)
      * Attended the CoReLab Seminar (Computation and Reasoning Laboratory)
      * Attended the CSLab Seminar (Computing Systems Laboratory)
      * Attended “Mathematical Thinking” Seminar (by Professor Themistocles M. Rassias)
      * Co-assistant at CoReLab & CSLab (towards helping first graders)

**09/2016 – 06/2019 General Lyceum of Zosimaia School, Ioannina, Greece**

* + - * ***GPA 20.0/20.0* (Excellent)**

**WORK EXPERIENCE**

**09/2024 – present “Fixed Term PhD Contract”** at **Huawei** Munich Research Center –

Trustworthy Technology and Engineering Laboratory

Identity & Access Management group - supervised by **Dr. Aifen Sui**

PhD topic:

“Privilege Management of LLM-based AI-agents and Applications in Transportation Systems”

supervised by **Prof. Constantinos Antoniou – TUM**

**01/2024 – 08/2024 “Master Student Contract”** at **Huawei** Munich Research Center –

Trustworthy Technology and Engineering Laboratory

Identity & Access Management group - supervised by **Dr. Aifen Sui**

Master’s Thesis topic:

“Creating an LLM-based AI-agent: A high-level methodology towards enhancing LLMs with APIs”

supervised by **Prof. Nikolaos Papaspyrou – NTUA**

<http://artemis.cslab.ece.ntua.gr:8080/jspui/handle/123456789/19180>

**07/2023 – 01/2024 “Internship Contract”** at **Huawei** Munich Research Center –

Trustworthy Technology and Engineering Laboratory

Identity & Access Management group - supervised by **Dr. Aifen Sui**

Projects related to “**Formal Methods for Security**”

**AWARDS & ACADEMIC ACTIVITIES**

**2019-present**

**Mathematical Competitions and Team Leadership**

* **Gold Medal** and **unique problem 8 solver** at the 28th International Mathematics Competition for University Students (IMC 2021) <https://www.ece.ntua.gr/gr/article/464>
* **Bronze Medal** at the 15th SEEMOUS 2021 <https://www.ece.ntua.gr/gr/article/462>
* **Gold Medal** at the 4th Open Mathematical Olympiad for University Students 2021 (IUHD) <https://www.ece.ntua.gr/gr/article/452>
* **Honorable Mention** at the 27th International Mathematics Competition for University Students (IMC 2020) <https://www.ece.ntua.gr/gr/article/424>
* **Gold Medal** and **1st Place (absolute winner)** at the 3rd Open Mathematical Olympiad for University Students 2020 (IUHD) <https://www.ece.ntua.gr/gr/article/409>
* **Bronze Medal** at the 14th SEEMOUS 2020 <https://www.ece.ntua.gr/gr/article/406>
* **3rd Greek Place** at the Mediterranean Mathematical Competition MMC 2019
* **Bronze Medal** at the 36th National Mathematical Olympiad (2019) <http://www.hms.gr/?q=node/1514>
* NTUA-NKUA coordinator/team leader at the 4th Open Mathematical Olympiad for University Students 2021 (IUHD)
* Organising committee member at 13th Mathematical Summer School (2019) of Hellenic Mathematical Society (HMS)
* Invigilator of HMS at “Thales” Mathematical Competition (2019)
* ELSEVIER “Certificate of Reviewing” in recognition of the review contributed to the journal “Transportation Research Part A: Policy and Practice”

**AWARDS & SCHOOL ACTIVITIES**

<http://www.kizoa.com/Movie-Video-Slideshow-Maker/d162088822k3281783o1l1/photo-album>

**2010- 2019 Annual Distinction at:**

* “Kangaroo” Mathematical Competition
* “Thales” Mathematical Competition
* “Euclides” Mathematical Competition
* “Vraveio” and/or “Aristeio” (high school GPA awards)

**Scientific groups, Clubs, Blogs & Presentations:**

* Attended 11th (2017) and 12th (2018) Mathematical Summer Schools of Hellenic Mathematical Society (HMS)
* “M.A.T.H.= Mathematics Applied To Hypotheses” <http://mathjt.blogspot.com/>
* “The Mathemagician”: Blog presentation at the 7th Greek School DigiFest 2017 <http://jtmaths.blogspot.com/>
* Participated in Erasmus+, eTwinning projects and various extra-curriculum school scientific groups
* Implemented (using the “Glossa” interpreter) a personal Euclidean Division-based Number Theory Algorithm
* Implemented and generalised (using GeoGebra) a “triangle similarity” problem

**DIGITAL & LANGUAGE SKILLS**

**Computer Experience**

* C++, Python, MatLab, TinkerCad, Arduino, LTspice, GNU Octave, PicoScope, MathWorks, GeoGebra, Ms Office, NuSMV, SPIN, Maude, Z3-Prover

**Languages**

* English (Michigan ECCE - 1000/1000 in Speaking), German (B1 Staatszertifikat über Sprachkenntnisse), Greek

**SCIENTIFIC INTERESTS**

* Discrete Mathematics (Combinatorics, Algorithms, Graph Theory, Number Theory, Automata Theory)
* Cyber Security (especially **Information Security**)
* Formal Methods, **Formal Verification & Model Checking**
* Geometry

**HOBBIES** [www.youtube.com/user/dimigoum](http://www.youtube.com/user/dimigoum)

**Music** [**www.youtube.com/watch?v=13Zj6UqBi1E&t=6s**](http://www.youtube.com/watch?v=13Zj6UqBi1E&t=6s)

* Piano and Music Theory & Harmony education

at the Municipal Conservatory of Ioannina

* Participated in concerts as a pianist (soloist as well), e.g. <https://www.youtube.com/watch?v=KAd21ilME1o>
* Participated as a baritone at the NTUA chorus
* Participated in poetry galas as a pianist

**Chess**

* Participated in local (Ioannina) and national tournaments

and has been awarded several medals, e.g.:

**Gold Medal** at School Chess Tournament for individuals – Perfecture of Ioannina, 2016

**Bronze Medal** at School Chess Tournament for teams – West Greece, 2015

**Dancing**

* Latin dancing and Greek traditional dancing (e.g. [Tsamikos](https://www.youtube.com/watch?v=GyGnFjqvE5A&ab_channel=DIMITRAIGOUMENIDI))
* Participated in Salsa Guinness World Record in 2017 <https://www.youtube.com/watch?v=80HxOGfcOA4>

**Sports**

* “Lake Run” 30km Marathon (2019)
* Member of the local (Ioannina) rowing team “NOI” (2016-2018)
* Member of the local (Ioannina) basketball teams “Kronos” and “AGSI” and basketball summer camps (2008-2017)