

# PARASKEVI-MARIA-MALEVI MACHAIRA

## Computer Engineer

@ machaira@ceid.upatras.gr  
🌐 <https://icelab.upatras.gr/machaira/>



## RESEARCH INTERESTS

- Algorithms & Complexity
- Algorithm Engineering
- Routing Algorithms

## PUBLICATIONS

- S. Kontogiannis, P. Machaira, A. Paraskevopoulos, C. Zaroliagis. REX: A Realistic Time-dependent Model for Public Transport. *In ATMOS 2022, to appear.*
- S. Kontogiannis, P. Machaira, Konstantinos Raftopoulos, A. Paraskevopoulos, C. Zaroliagis. Cloud-Based Urban Mobility Services. *In ALGO CLOUD 2022, to appear.*
- G. Christainas, A. Kampyli, D. Kehagias, M. Kyrkou, S. Kontogiannis, P. Machaira, A. Paraskevopoulos, A. Salamanis, P. Spanidis, N. Zacharatos, and C. Zaroliagis. SocialPARK: An integrated Parking-as-a-Service Ecosystem. *In 14th ITS European Congress - ITS 2022.*
- P. Machaira, S. Kontogiannis, A. Paraskevopoulos, and C. Zaroliagis. New Graph-based Approaches for Multi-Modal Route Planning. *In 31st European Conference on Operational Research - EURO 2021, p. 216.*

## CURRENT POSITION

Researcher at the Intelligent Computing & Engineering Laboratory (ICELab)

Computer Engineering and Informatics Department

📅 Oct. 2016 - Now 📍 Patras, Greece

🌐 [icelab.upatras.gr](http://icelab.upatras.gr)

- Design and development of shortest path algorithms in public transit networks.
- Supervision of students' theses.
- Development and maintenance of the Laboratory website.

## PROFESSIONAL EXPERIENCE

Project i-Deliver

Computer Engineering and Informatics Department

📅 May 2022 - Now 📍 Patras, Greece

R&D in vehicle routing algorithms, and pickup and delivery algorithms.

Project TouristHub

Computer Engineering and Informatics Department

📅 Jan. 2022 - Apr 2022 📍 Patras, Greece

## EDUCATION

MSc - Computer Science and Engineering (Grade: 9.00/10.00)

Computer Engineering and Informatics Department

📅 Oct. 2021

- Thesis: A novel Time-dependent Model for Route Planning in Public Transit Networks.

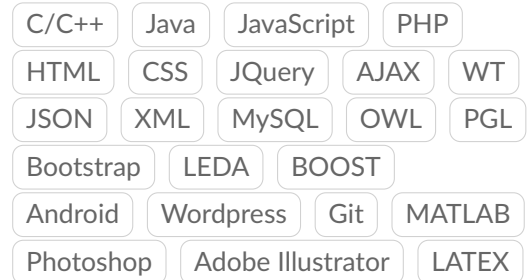
MEng - Computer Engineering and Informatics (Grade 7.76/10.00)

Computer Engineering and Informatics Department, University of Patras

📅 Nov. 2017

- Thesis: Development of a realistic time-dependent model for public transit.

## SKILLS



## LANGUAGES

- English, C1
- Greek (native language)

## TEACHING

Introduction to Algorithms - Teaching Assistant

Computer Engineering and Informatics Department

📅 Oct. 2017 - Today

R&D in planning optimal multimodal routes and tourist tours.

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## Erasmus Internship

### Karlsruhe Institute of Technology (KIT)

📅 Nov. 2021 – Jan 2022

📍 Karlsruhe, Germany

R&D in multi-criteria public transport algorithms.

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## Project SocialPARK

### Computer Engineering and Informatics Department

📅 Nov. 2018 – Oct. 2021

📍 Patras, Greece

- R&D in algorithms and their application in personalised routing, navigation and park-and-ride services.
  - Development and maintenance of the project's website.
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## Project INVESTMENT

### Computer Engineering and Informatics Department

📅 Nov. 2018 – Nov. 2020

📍 Patras, Greece

- R&D in algorithms and applications for optimal multimodal route and tourist tour planning
  - Development and maintenance of the project website.
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## International Conference ICALP 2019

### University of Patras

📅 Apr. 2019 - Jul. 2019

📍 Patras, Greece

- Development of a backend system and a web application for registrations.
  - Maintenance of the conference website.
  - Management of registrations and payments.
  - Design of printed material.
  - Participation in the preparation and conduct of the conference.
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## Traineeship

### CTI Institute, Diophantus

📅 Apr. 2017 - Jul. 2017

📍 Patras, Greece

- Development of an experimental platform in C ++, using WT library, for the evaluation of routing algorithms in public transit.

## SOFTWARE DEVELOPMENT EXPERIENCE

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- Development of cloud services for routing engines and mobility services (SocialPARK, INVESTMENT, TouristHub)
- Development of mobile apps for smart mobility services (SocialPARK, INVESTMENT)
- Development and maintenance of websites (ICELab, SocialPARK, INVESTMENT)

## Algorithm Engineering - Laboratory Assistant

### Computer Engineering and Informatics Department

📅 Feb 2018 - Today

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## Computer Architecture - Laboratory Assistant

### Computer Engineering and Informatics Department

📅 Feb. - Jun. 2016

## MINOR PROJECTS

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- Development of a web API and a demo website to monitor air pollutants with heatmaps
- Development of a restaurant management system using JDBC
- Development of the game "Space Mining" using C++
- Development of e-shops using openCart and Wordpress

## HOBBIES

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- reading books
- travelling
- cooking