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🌐 <https://foivosmichelinakis.github.io/> • **in** foivosmichelinakis

🔗 FoivosMichelinakis

Summary

I am a Communications Engineer specialising in wireless communication systems measurements. My current research studies how applications and protocols perform over 4G/5G technologies (sub-6Ghz, mmWave, NB-IoT, LTE-M). I prefer working on real equipment rather than doing simulations / models. Currently, I work on IoT devices, as well as industrial and academic 5G testbeds. My current project is 5G-VINNI. My past projects include eCOUSIN and MONROE.

Experience

Vocational.....

Simula Metropolitan Center for Digital Engineering (SimulaMet) **Oslo, Norway**

Postdoctoral Fellow

10/2018–Present

5G / NB-IoT experimentation, analytics and KPI verification. Participation in the European project 5G-VINNI.

Simula Research Laboratory

Oslo, Norway

PhD Intern

12/2017–02/2018

Evaluate CDN performance over mobile networks.

IMDEA Networks Institute

Madrid, Spain

Research assistant

10/2012–09/2017

Participation in the FP7 Framework program “eCOUSIN”.

Korea Advanced Institute of Science and Technology - KAISTDaejeon, Republic of Korea

Visiting PhD student

1/2017–7/2017

Group project: develop an application that monitors the context of a mobile phone in order to minimize unnecessary radio operations.

Spotify

Stockholm, Sweden

PhD Intern

9/2014–11/2014

Development of a passive mobile bandwidth classification tool.

Hellenic Army (Greek Army)

Athens, Greece

Web developer / IT support

10/2011–7/2012

Web-developer: Maintenance of the main web site of the Greek army (www.army.gr) tools: PHP-smarty, Netvolution CMS.

IT support: School of Military Informatics for Senior Officers. Maintenance and administration of more than 100 PCs.

Miscellaneous.....

NGO: “Board of European Students Of Technology”

Athens, Greece

IT support

12/2009–09/2011

Private tutor

Athens, Greece
2006–2008

Private tutor in mathematics and physics for high school students

Hellenic Statistical Authority (El. Stat.)

Enumerator

Information collection by interviews

Athens, Greece
10/2005–10/2007

Education

University Carlos III of Madrid

PhD student,

Research in the areas of “Mobile Networks”, “Network Optimization” and “Content Distribution Networks”.
Supervisor: Professor Joerg Widmer.

Madrid, Spain

10/2013–09/2018

University Carlos III of Madrid

Master in Telematics engineering, 9.48/10 (top of class)

Track: Communication networks and services.

Diploma Thesis title: “Practical challenges of network optimized stored video delivery”.

Supervisor: Professor Joerg Widmer -Cosupervisor: Professor Albert Banchs (Grade 10/10)

Madrid, Spain

10/2012–10/2013

National Technical University of Athens (NTUA)

5-year Diploma in Electrical and Computer Engineering, 8.40/10 (top 10%)

Direction of specialization: Telecommunications

Major: Electromagnetic waves, Telecommunication systems and Computer Networks

Minor: Energy Conversion, High Voltages and Industry Applications

Diploma Thesis title: “Real time media streaming over peer to peer Networks”

Supervisor: Professor Theodora Varvarigou (Grade 10/10)

Athens, Greece

9/2005–2/2011

2nd Arsakeio High School of Psichiko

High School, 19.6/20

Certificates awarded: Certificates of Excellence by the Greek Ministry of Education (6 in total)

Athens, Greece

1999–2005

Award and Grants

- Student Travel Grant, **ACM IMC 2017**.
- Student Travel Grant, **IFIP WMNC 2015**.
- **TEAM-MUNDUS Scholarship**. Economic support for the internship at KAIST.

Publications

- [1] F. Michelinakis, H. Doroud, A. Razaghpanah, A. Lutu, N. Vallina-Rodriguez, P. Gill, and J. Widmer, “The cloud that runs the mobile internet: A measurement study of mobile cloud services,” in *IEEE INFOCOM*, (Honolulu, HI, USA), April 2018.
- [2] F. Michelinakis, N. Bui, G. Fioravanti, J. Widmer, F. Kaup, and D. Hausheer, “Lightweight capacity measurements for mobile networks,” *Computer Communications*, vol. 84, pp. 73–83, 2016.
- [3] N. Bui, F. Michelinakis, and J. Widmer, “Fine-grained lte radio link estimation for mobile phones,” in *WoWMoM*, 2017.
- [4] N. Bui, F. Michelinakis, and J. Widmer, “Fine-grained lte radio link estimation for mobile

phones,” *Pervasive and Mobile Computing*, 2018.

- [5] F. Michelinakis, G. Kreitz, R. Petrocco, B. Zhang, and J. Widmer, “Passive mobile bandwidth classification using short lived tcp connections,” in *WMNC*, 2015.
- [6] F. Kaup, F. Michelinakis, N. Bui, J. Widmer, K. Wac, and D. Hausheer, “Behind the NAT – A measurement based evaluation of cellular service quality,” in *CNSM*, 2015.
- [7] F. Michelinakis, N. Bui, G. Fioravanti, J. Widmer, F. Kaup, and D. Hausheer, “Lightweight mobile bandwidth availability measurement,” in *IFIP Networking Conference*, May 2015.
- [8] N. Bui, F. Michelinakis, and J. Widmer, “A model for throughput prediction for mobile users,” in *European Wireless*, (Barcelona, Spain), May 2014.
- [9] M. Xie, W. Y. Poe, Y. Wang, A. J. González, A. Elmokashfi, J. A. P. Rodrigues, and F. Michelinakis, “Towards closed loop 5g service assurance architecture for network slices as a service,” 2019.
- [10] F. Kaup, F. Michelinakis, N. Bui, J. Widmer, K. Wac, and D. Hausheer, “Assessing the implications of cellular network performance on mobile content access,” *Transactions on Network and Service Management*, 2016.
- [11] M. Xie, J. S. Pujol-Roig, F. Michelinakis, T. Dreibholz, C. Guerrero, A. Gallego Sanchez, W. Yi Poe, Y. Wang, and A. M. Elmokashfi, “AI-Driven Closed-Loop Service Assurance with Service Exposures,” in *2020 European Conference on Networks and Communications (EuCNC)*, pp. 265–270, 2020.
- [12] M. Xie, F. Michelinakis, T. Dreibholz, J. S. Pujol-Roig, S. Malacarne, S. Majumdar, W. Yi Poe, and A. M. Elmokashfi, “An Exposed Closed-Loop Model for Customer-Driven Service Assurance Automation,” in *2021 European Conference on Networks and Communications (EuCNC)*, 2021.
- [13] M. Marciel, F. Michelinakis, R. Fanou, and P. J. Muñoz-Merino, “Enhancements to google course builder: Assessments visualisation, youtube events collector and dummy data generator,” in *SINTICE*, 2013.
- [14] F. Michelinakis, A. S. Al-selwi, M. Capuzzo, A. Zanella, K. Mahmood, and A. Elmokashfi, “Dissecting Energy Consumption of NB-IoT Devices Empirically,” *IEEE Internet of Things Journal*, 2020.
- [15] O. Nassef, T. Mahmoodi, F. Michelinakis, K. Mahmood, and A. Elmokashfi, “Optimising Performance for NB-IoT UE Devices through Data Driven Models,” *Journal of Sensor and Actuator Networks*, vol. 10, no. 1, 2021.

Computer skills

Scripting: Python, Bash, Matlab

Languages: C, C++ (NS3), SQL

Operating systems: Linux

Markup: \LaTeX , HTML, CSS

Projects

Title: *eCOUSIN: enhanced COntent distribUtion with Social Information*

Description:

- Research on Network optimization / economics, based on information gathered from the context of the users and especially “online social networks”.
- Simulations of mobile networks using NS-3 and C++.
- Author of deliverables and articles published in mainstream magazines.

Title: *5G-VINNI: 5G Verticals INNOvation Infrastructure*

Description:

- Testing and validation of experimental 5G testbed facility sites.
- Support across the project and for the vertical projects that will be supported by the E2E facility.

Extracurricular Activities

- Active member of the non-governmental organisation “Board of European Students of Technology” (3/2010-09/2011). Responsibilities: member of the fund raising team, main organizer of an event, organizer at several other events.
- Various medals and honours at school and local sport events (long jump, 50m race, 100m race, 600m race, 4X100m relay race).

Languages

Greek: Mother tongue

English: Fluent

Cambridge proficiency-level C2, Grade: c

German: Basic

STAATZERTIFIKAT ÜBER SPRACHKENNTNISSE-level A2, Grade: Pass

Spanish: Basic

Basic conversation

Hobbies/Interests

- Sports
- Photography
- Participation in technology-related and mathematical/computer programming challenges message boards
- Traveling
- Folk dances