



Paul F. Diac

PHD · ASSISTANT PROFESSOR

700483, Faculty of C.S., A.I. Cuza University, General Berthelot Str. 16, Office C414b, Iași, Romania

☎(+4 0)752-153-555 | ✉paul.f.diac@gmail.com | 📷pauldiac | 📄pauldiac | 📧paul.f.diac

Education

“Alexandru Ioan Cuza” University of Iași, FACULTY OF COMPUTER SCIENCE

Iași, Romania

PH.D. research topics: *combinatorial optimization, computational complexity, web service composition, routing algorithms, natural language processing, knowledge representation, distributed systems*. profile links: **gscholar** and **dlbp**

2013 - 2020

Thesis: **Automatic Web Service Composition - Models, Complexity and Applications**, defended on 26 June, 2020.

Doctoral students representative in faculty council and in the doctoral school board.

MASTERS DEGREE in Computer Science, gpa **8.93 / 10**, Master's thesis **10 / 10** about SAT Solver Engineering.

2009 - 2011

BACHELOR DEGREE in C. S., gpa **9.91 / 10** - second highest out of 209 students, thesis **10 / 10** about Combinatorial Auctions.

2006 - 2009

“Costache Negruzzi” National Highschool

Iași 2002-2006

“Grigore Moisil” Theoretical Highschool of Informatics

Iași 1998-2002

Teaching

“Alexandru Ioan Cuza” University of Iași, FACULTY OF COMPUTER SCIENCE

Iași, Romania

COMPETITIVE PROGRAMMING supplementary students training for **ICPC** competitions and others.

2015 - PRESENT

MULTIPROCESSOR PROGRAMMING

2021 - PRESENT

ALGORITHM DESIGN

2011, 2013-15, 2021 - PRESENT

GRAPH ALGORITHMS

2020 - PRESENT

Center of Excellence high-school training for informatics olympiad, TEACHER

Iași 2006-11, 2013 - 2021

Hai la Olimpiadă! gymnasium training for informatics olympiad, COORDINATOR AND TEACHER

Iași 2015 - PRESENT

Work Experience

“Alexandru Ioan Cuza” University of Iași, FACULTY OF COMPUTER SCIENCE

Iași, Romania

RESEARCH ASSISTANT

Feb. 2018 - Jan. 2020

- Author or co-author of **7** papers in this period, belonging to about four research areas. Member of the **EBSIS** research project, **NLP** group, and coordinator of **4** bachelor or masters thesis, presented at academic conferences.

Google.com

Zürich, Switzerland

PH.D. RESEARCH INTERN

Jul. 2017 - Sep. 2017

- Member of the Research and Machine Intelligence team, project in the area of text understanding, semantic modeling and reasoning, **C++**.

Twitter.com

San Francisco, California

SOFTWARE ENGINEER INTERN

Jul. 2014 - Sep. 2014

- Member part of Contacts Graph / Growth team, working on address book service, implemented in **Scala**.

Facebook.com

Menlo Park, California

SOFTWARE ENGINEER

Nov. 2011 - Feb. 2013

- Member of the Monitoring Team working on storage migration from **MySQL** to **HBase**, particularly on the automatic detection of issues and failover mechanism (presentation link), mostly in **Python**. Oncall and other maintenance duties, regularly throughout the period.
- Owner of the alarm service mechanism used for detecting and reacting on real-time issues for a short period of time, and part of the process of moving the code from **PHP** to **C++**.

SOFTWARE ENGINEER INTERN

Jun. 2010 - Oct. 2010

- Implemented on a distributed scheduler used for periodical big data processing jobs, in **Java**.

Amazon.com

Iași, Romania

SOFTWARE ENGINEER

Jun. 2009 - Jun. 2010

- Member of the Amazon's Simple Email Service - AWS Team. In this period, the design and initial implementation of the service was done.
- Inventor of “IP Management for Outbound Emails” patent of Amazon.com and a dynamic reputation system for service customers; all **Java**.

SOFTWARE ENGINEER INTERN

Jun. 2008 - Jun. 2009

- Two × six months internships at working part time during last year of bachelors studies.
- Implemented an efficient traversal of the amazon product categories tree and a web interface for internal search service, both in **Java**.

Awards and Committees

INTERNATIONAL

- 2019, 21 **Finalist, ICPC World Finals** first qualification of [UAIC] university, as team coach and co-coach (2021). *Porto, Portugal*
- 2018 **DEBS Performance Award Winner**, Distributed and Event-Based Systems Conference: Grand Challenge. *Hamilton, New Zealand*
- 2017 **DEBS Performance Award Winner**, DEBS: Grand Challenge. Member of the **UAIC** team for both editions. *Barcelona, Spain*
- 2006-09 **Ranked: 12th, 30th, 20th, 14th**, ICPC South-East European Regional Contest, in team of 3. *Bucharest, Romania*
- 2013-22 **Ranked: 63, 51, 47, 15, 38, 3, 10, 4, 11, 8**, South-East European Regional Contest, (co-)coach of UAIC. *Bucharest, Romania*

NATIONAL

- 2011,19 **1st Place**, RCPC: Romanian Collegiate Programming Contest: as student (2011) and coach (2019). *București*
- 2014-19 **Member**, Scientific Committee of Romanian ICPC and previous ONIS Contests. *București, Iași, Cluj*
- 2008-20 **Member**, problem-setter for: .campion, “Urmașii lui Moșil”, F11, FIIcode, ProSoft, Sapientia ECN.
- 2009-11 **8th, 4th, 3rd Place**, Algoritmiada National Contest Finale. *Brașov, Iași, Timișoara*
- 2006 **Qualified**, Romanian **Extended** High-School Group for International Olympiads. *Targoviște*
- 2004 **8th Place**, Romanian National Olympiad in Informatics. *Buzău*
- 2006 **3rd Place**, “Urmașii lui Moșil” contest. *Iași*
- 2005 **Finalist**, .campion national contest. *Vălenii de Munte*

Research

PUBLICATIONS

- 2021 **KES**, Alexandru Oloieri, **Paul Diac**. “Throughput-based Service Composition”. In: *Int. Conf. on Knowledge-Based and Intelligent Information and Engineering Systems* *Szczecin, Poland*
- 2020 **ICCP**, **Paul Diac**. “A Graph-Based Model for Combinatorial Auctions”. In: *Int. Conf. on Intelligent Computer Communication and Processing* *Cluj, Romania*
- 2019 **KES**, **Paul Diac**, Liana Țucăr, and Andrei Netedu. “Relational Model for Parameter Description in Automatic Semantic Web Service Composition”. In: *Int. Conf. on Knowledge-Based and Intelligent Information and Engineering Systems* *Budapest, Hungary*
- 2019 **ICEBE**, Andrei Netedu, Sabin Buraga, **Paul Diac**, and Liana Țucăr. “A Web Service Composition Method Based on OpenAPI Semantic Annotations”. In: *Int. Conf. on e-Business Engineering* *Shanghai, China*
- 2019 **ICSOF**, **Paul Diac** and Emanuel Onica. “Towards Integrated Failure Recovery for Web Service Composition”. In: *Int. Conf. on Software Technologies* *Prague, Czech Republic*
- 2019 **FROM (workshop)**, **Paul Diac**, Liana Țucăr, and Radu Mereuță. “Extending the Service Composition Formalism with Relational Parameters”. In: *Working Formal Methods Symposium* *Timișoara, Romania*
- 2018 **KES**, Liana Țucăr and **Paul Diac**. “Semantic Web Service Composition Based on Graph Search”. In: *Int. Conf. on Knowledge-Based and Intelligent Information and Engineering Systems* *Belgrade, Serbia*
- 2018 **DEBS**, Ciprian Amariei, **Paul Diac**, Emanuel Onica, and Valentin Roșca. “Cell Grid Architecture for Maritime Route Prediction on AIS Data Streams”. In: *Int. Conf. on Distributed and Event-based Systems* *Hamilton, New Zealand*
- 2018 **DEBS**, Valentin Roșca, Emanuel Onica, **Paul Diac**, and Ciprian Amariei. “Predicting Destinations by Nearest Neighbor Search on Training Vessel Routes”. In: *Int. Conf. on Distributed and Event-based Systems* *Hamilton, New Zealand*
- 2018 **ICTAI**, Cosmin Pascaru and **Paul Diac**. “Vehicle Routing and Scheduling for Regular Mobile Healthcare Services”. In: *Int. Conf. on Tools with Artificial Intelligence* *Volos, Greece*
- 2018 **CICling**, **Paul Diac**, Mihaela Colhon, and Cătălina Mărânduc. “Relationships and Sentiment Analysis of Fictional or Real Characters”. In: *Int. Conf. on Computational Linguistics and Intelligent Text Processing* *Hanoi, Vietnam*
- 2017 **KES**, **Paul Diac**. “Engineering Polynomial-Time Solutions for Automatic Web Service Composition”. In: *Int. Conf. on Knowledge-Based and Intelligent Information and Engineering Systems* *Marseille, France*
- 2017 **SYNASC (poster)**, **Paul Diac**. “WARP: Efficient Automatic Web Service Composition”. In: *Symposium on Symbolic and Numeric Algorithms for Scientific Computing* *Timișoara, Romania*
- 2017 **DEBS**, Ciprian Amariei, **Paul Diac**, and Emanuel Onica. “Optimized Stage Processing for Anomaly Detection on Numerical Data Streams”. In: *Int. Conf. on Distributed and Event-based Systems* *Barcelona, Spain*
- 2015 **LPCL**, Dan Cristea, Daniela Gifu, Mihaela Colhon, **Paul Diac**, Anca-Diana Bibiri, Cătălina Mărânduc, and Liviu-Andrei Scutelnicu. “Quo Vadis: A Corpus of Entities and Relations”. In: *Language Production, Cognition, and the Lexicon* *book chapter*
- 2014 **ConsILR**, Anca-Diana Bibiri, Mihaela Colhon, **Paul Diac**, and Dan Cristea. “Statistics Over a Corpus of Semantic Links – Quo Vadis”. In: *Linguistic Resources And Tools For Processing The Romanian Language* *Craiova, Romania*
- 2013 **US Patent**, Paul F **Diac** and Igor Spac. *IP Management for Outbound e-Mails*. US Patent 8560616