

Orestis MELKONIAN

PERSONAL DATA

PLACE AND DATE OF BIRTH: Athens | 3 December 1992
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EDUCATION

OCT 2010 - APR 2016 B.Sc. in COMPUTER SCIENCE
Department of Informatics and Telecommunications
University of Athens, Greece
GPA: 8.6/10
Specializations: Knowledge and Data Management, Software
Supervisors: Panos Rondogiannis, Angelos Charalambidis
Thesis: RHEA - A Reactive, Heterogeneous, Extensible and Abstract
Framework for Dataflow Programming [[pdf](#), [git](#)]

FEB 2014 - Jul 2014 Erasmus exchange student in COMPUTER SCIENCE
Faculty of Informatics
Universita della Svizzera Italiana, Lugano, Switzerland
Coordinators: Ioannis Emiris, Marc Langheinrich

WORK EXPERIENCE

MAY 2016 - MAY 2017 Technical Internship
CERN, Geneva, Switzerland
INVENIO project: *Image auto-tagging for the Cern Document Server (CDS)*

OCT 2015 - APR 2016 Research Internship
National Center for Scientific Research "Demokritos", Athens, Greece
Software & Knowledge Engineering Laboratory (SKEL)
Design and implementation of a dataflow framework for robotics

RESEARCH INTERESTS

- Distributed Computing, Parallelism
- Logic & Functional Programming
- Programming Languages, Semantics
- Verification, Formal Methods
- Artificial Intelligence
- Evolutionary Computing
- Deep Learning
- Constraint Satisfaction

TECHNICAL SKILLS

* : BEGINNER

Programming Languages: C/C++, Java, Python, Prolog, Datalog, Haskell, Scala, Matlab
Scripting: Bash, sed, awk, AutoHotkey, *Perl, *Ruby
Version Control Systems: Git, SVN
Web Development: Javascript, jQuery, *AngularJS, HTML5 + CSS, Bootstrap, Ajax
Concurrency: PThreads, System-V, MPI, OpenMP, Cuda, rxjava
Databases: SQL, MySQL, MySQL Workbench, *MongoDB
Frameworks: OpenGL, JavaCC, JavaJTB, JUnit, AIMA Python, Eclipse CLP, ROS
IDEs: Eclipse, Visual Studio, IntelliJ, DevC++, Borland C++ Builder
Build Automation: GNU make, *Cmake, Maven, Gradle, *Ant, Vagrant
Operating Systems: Linux, Windows, *OSX
Typesetting: L^AT_EX, Microsoft Office, LibreOffice, UML

AWARDS

JAN 2016	Student Travel Grant POPL '16 , Florida, US	DEC 2015	A Streamful of Robots NCSR , Athens, Greece
MAR 2016	Student Travel Grant Meddays '16 Sophia-Antipolis, France	DEC 2015	A Dataflow Approach to Robot Programming 13th Programming Language Seminar, IEEE , Athens, Greece

TALKS

ACADEMIC PROJECTS

WEB SOFTWARE DEVELOPMENT	Impero! A massive-multiplayer online turn-based strategy game <i>Contributions:</i> Random map generation, Gameplay logic, Client visualization <i>Technologies:</i> Agile Programming, SCRUM, Java, Javascript, MongoDB, REST, Create.js
PROGRAMMING LANGUAGES	LCI An interpreter for the λ -Calculus <i>Technologies:</i> C++, Recursive Descent Parsing
LARGE SOFTWARE DEVELOPMENT	SNAP Social Network Analysis Project Previous topic for ACM-SIGMOD programming contest <i>Technologies:</i> C++, GNUplot, Large CSV Datasets
PATTERN RECOGNITION OCR	A morphological approach to text extraction from periodically repeated backgrounds [paper] <i>Technologies:</i> C++, ImagXpress7, Borland C++ Builder
COMPILERS	MiniJava A complete compiler for a pure subset of Java <i>Technologies:</i> Java, JavaCUP, JavaJTB, Visitor Pattern, IRIS Datalog
PARALLEL SYSTEMS	Distributed image convolution using 3 different frameworks <i>Technologies:</i> MPI, OpenMP, CUDA
MACHINE LEARNING	Airplane classification from black-white images <i>Technologies:</i> Matlab, k-NN classifier, Euclidean classifier
LOGIC PROGRAMMING	A personal archive of Prolog programs <i>Technologies:</i> SWI-Prolog, ECLiPSe Prolog
ARTIFICIAL INTELLIGENCE	A collection of solutions to famous AI problems <i>Technologies:</i> Python, AIMA Python, Tk/Tcl
SYSTEMS PROGRAMMING	A multi-threaded server that extracts a secret word from an oracle <i>Technologies:</i> C/C++, Pthreads, Signals, Sockets, Bloom Filters
COMPUTER GRAPHICS	Interstellar A 3-D game for asteroid avoidance <i>Technologies:</i> C/C++, OpenGL, Adobe Photoshop
COMPUTATIONAL GEOMETRY	A GUI app of the sweep algorithm for line and parabolas intersection <i>Technologies:</i> Java, JFrame, Self-balancing trees
MUSIC EDUCATION	A software suite to aid music learning, provide test simulations, etc... <i>Technologies:</i> C/C++, HTML/CSS, Javascript, Web Audio API

For more details (code, documentation) check my [webpage](#)

LANGUAGES

GREEK: Native speaker
ENGLISH: Fluent
Certificate of Proficiency, University of Michigan
GERMAN: Basic
Zertifikat B1, Goethe Institute

EXTRA-CURRICULAR ACTIVITIES

Music Instrument: Electric jazz guitar (Intermediate)
RGT Grade 6 (*distinction*)
UWLQ Level 3 Certificate in Music Performance(Grade 6), University of West London
Examiner: Adam Moore BA(Hons), MMus, PGCE, FLCM

Guitar Lessons, (Algorithmic) Music Composition, Films, Philosophy, Literature, Traveling