Orestis MELKONIAN

PERSONAL DATA

PLACE AND DATE OF BIRTH:	Athens ǀ 3 December 1992
ADDRESS:	Ivis 98, Glyfada, Athens, Greece
EMAIL:	melkon.or@gmail.com
WEBPAGE:	omelkonian.github.io

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 (*Backend Web Developer*)
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

Languages:	C/C++, Java, Python, Prolog, Datalog, Haskell, Scala, Matlab, Racket, Bash
Version Control:	Git, SVN
Web:	Flask, Celery, Javascript, Coffeescript, AngularJS, HTML5 + CSS, Yesod
Concurrency:	PThreads, MPI, OpenMP, Cuda, Rx, Hazelcast
Databases:	SQL, MySQL, PostgreSQL, SQLite
Frameworks:	OpenGL, JavaCC, JavaJTB, AIMA Python, ECLiPSe CLP, ROS, scala.meta
Testing:	jUnit, QuickCheck, pyTest, specs2
IDEs:	Intellij, PyCharm, Eclipse, Visual Studio, CoqIDE
Build:	GNU make, Maven, Gradle, Pip, Cabal
Typesetting:	LaTeX, Microsoft Office, UML

AWARDS		TALKS	
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

ACADEMIC PROJECTS

DATAFLOW PROGRAMMING	**RHEA** A Reactive, Heterogeneous, Extensible and Abstract Framework for Dataflow Programming *Technologies:* Java, Scala, Rx, Hazelcast, Ros
META PROGRAMMING	**MWS** Framework for generating full-stack CRUD web apps *Technologies:* Scala, scala.meta, Play, Coffeescript, AngularJS
EMBEDDED DSL	**Racketlog** Prolog implementation embedded in Racket *Technologies:* Racket, Dr.Racket, Macros
WEB SOFTWARE DEVELOPMENT	**Impero!** A massive-multiplayer online turn-based strategy game *Contributions:* Random map generation, Gameplay logic, Client visualization *Technologies:* Agile Programming, SCRUM, Java, Javascript, MongoDB, REST, Create.js
PROGRAMMING LANGUAGES	**LCI** An interpreter for the λ-Calculus *Technologies:* C++, Recursive Descent Parsing
LARGE SOFTWARE DEVELOPMENT	**SNAP** Social Network Analysis Project Previous topic for ACM-SIGMOD programming contest *Technologies:* C++, GNUplot, Large CSV Datasets
PATTERN RECOGNITION OCR	A morphological approach to text extraction from periodically repeated backgrounds [paper] *Technologies:* C++, ImagXpress7, Borland C++ Builder
COMPILERS	**MiniJava** A complete compiler for a pure subset of Java *Technologies:* Java, JavaCUP, JavaJTB, Visitor Pattern, IRIS Datalog
PARALLEL SYSTEMS	Distributed image convolution using 3 different frameworks *Technologies:* MPI, OpenMP, CUDA
MACHINE LEARNING	Airplane classification from black-white images *Technologies:* Matlab, k-NN classifier, Euclidean classifier
LOGIC PROGRAMMING	A personal archive of Prolog programs *Technologies:* SWI-Prolog, ECLiPSe Prolog
SYSTEMS PROGRAMMING	A multi-threaded server that extracts a secret word from an oracle *Technologies:* C/C++, Pthreads, Signals, Sockets, Bloom Filters
COMPUTER GRAPHICS	**Interstellar** A 3-D game for asteroid avoidance *Technologies:* C/C++, OpenGL, Adobe Photoshop
COMPUTATIONAL GEOMETRY	A GUI app of the **sweep** algorithm for line and parabolas intersection *Technologies:* Java, JFrame, Self-balancing trees
MUSIC EDUCATION	A software suite to aid music learning, provide test simulations, etc... *Technologies:* 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:	Intermediate
	Zertifikat B1, Goethe Institute
FRENCH:	Beginner
	A2.1, Supercomm Suisse SA

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