Orestis MELKONIAN

PERSONAL DATA

PLACE AND DATE OF BIRTH:	Athens	3 December 1992
ADDRESS:	Ivis 98, Glyfada, Athens, Greece
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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 (*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

| Dec 2015 | A Streamful of Robots **NCSR**, Athens, Greece |
| 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