Nikos **Katirtzis**

SOFTWARE ENGINEER · ASSOCIATE SOFTWARE DEV ENGINEER

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Education

The University of Edinburgh   *Edinburgh, United Kingdom*

M.Sc. IN COMPUTER SCIENCE (*Distinction*)   *Sep. 2015 - Aug. 2016*

- *Major*: Computer Systems, Software Engineering and High Performance Computing
- *Modules*: Applied Databases, Distributed Systems, Extreme Computing, Informatics Research Proposal, Informatics Research Review, Java Programming, Programming Skills, Software Architecture, Process, and Management, Software Development, Software Testing
- *Thesis*: "Summarising How a Software API is Used Using Machine Learning and Natural Language Processing Techniques"
- *GPA*: 76.4/100.0

Aristotle University of Thessaloniki   *Thessaloniki, Greece*

M.Eng. IN ELECTRICAL AND COMPUTER ENGINEERING (*2:1*)   *Sep. 2009 - Nov. 2014*

- *Major*: Electronics and Computer Engineering
- *Thesis*: "Mining Software Repositories for Test-Driven Reuse"
- *Qualification*: Ranked among **top 3%** of class
- *GPA*: 7.78/10.00

Experience

Hotels.com   *London, United Kingdom*

ASSOCIATE SOFTWARE DEV ENGINEER   *Sep. 2016 - PRESENT*

- Part of Customer Retention Team (CRT), which is responsible for designing and building technical solutions on how customers are identified, sign up for an account, and sign in to their account.
- Implemented a large part of the redesigned "Forgot Password" flow.
- Developed a Q&A bot that facilitates hotel search as part of Hotels.com's winter hackathon.
- Using Java Spring MVC Framework to serve web content.
- Using Spring MVC Test Framework, Mockito and TestNG for unit testing.
- Using Docker to automate the deployment of our applications.
- Using Splunk for log analysis.
- Using Python to automate everyday tasks and for data manipulation.
- Using MySQL and Datastax Cassandra NoSQL databases.
- Following popular Agile practices including Pair Programming, CI, TDD, and BDD.
- Following the Scrum process and using Atlassian's JIRA Software to support project management.
- Using Atlassian's software products including Bitbucket Server for version control, Bamboo Server for Continuous Delivery, and Confluence for better team collaboration.

Skills

Programming Languages	Java, Python, C
Operating Systems	Linux, MacOS, Microsoft Windows
Frameworks	Hadoop MapReduce, Maven, Spring, Mockito, JUnit, TestNG, Lucene
Databases	MySQL, Cassandra, Oracle RDBMS, SQLIte
Web Development	HTML, CSS, Bootstrap, Flask, Jekyll, Play
IDEs	IntelliJ IDEA, PyCharm, Eclipse SDK
Other Software	LaTeX, Splunk, scikit-learn, NLTK, Matlab
Languages	Greek, English, German

Volunteering

Expedia Inc.   *London, United Kingdom*

TEACHING ASSISTANT (TA) AT EXPEDIA CODEACADEMY "PYTHON LEVEL 2" COURSE   *Jan. 2017 - PRESENT*

- Providing classroom support by answering questions, resolving technical issues, and guiding students to complete their assignments in Python.
- Supporting drop-in sessions.
- Providing support as well as useful resources through course's Slack channel.

Greek Army *Xanthi, Greece*

Computer Systems Operator (Soldier) *Nov. 2014 - Aug. 2015*

- Responsible for the software used to control the targets during tank shots, as well as for many electronic devices that enabled monitoring of the shots.
- Drafted tutorials for the electronic devices and the software I used as part of my responsibilities.
- Drafted reports about results of the tank shots and about condition of the electronic equipment that was used during tank shots.
- Updated presentations used to support tank shots.

Aristotle University of Thessaloniki *Thessaloniki, Greece*

Organising member at "Auth Programming Contests" *Dec. 2013 - Apr. 2014*

- I focused on organising online programming contests for undergraduate students at Aristotle University of Thessaloniki (School of Electrical and Computer Engineering)
- Contributed to the website used for the programming competitions (available at `http://contests.ee.auth.gr`) by generating programming problems and providing analysis and solutions for the challenges.

Personal Projects

Summarizing Software API Usage Examples using Clustering Techniques *Mar. 2016 - Present*

- Designed and developed *CLAMS (Clustering for API Mining of Snippets)*, an approach for mining API snippets.
- The basic idea is to cluster a large set of usage examples based on what API methods they call, generate summarised versions for the top snippets of each cluster using a simple summarisation algorithm, and then select the most representative snippet from each cluster, using a tree edit distance metric on the ASTs.
- This results in a set of high quality API usage examples in the form of concise and readable snippets, thus enabling and supporting source code reuse even in cases of libraries with sparse or minimal documentation.
- Method is entirely data-driven, requiring only syntactic information from the program, and so is programming-language agnostic.
- This project contains work from the MSc thesis submitted while being a postgraduate student at University of Edinburgh.

Mantissa: A Recommendation System for Test-Driven Code Reuse *Jan. 2013 - Present*

- Designed and developed *Mantissa*, an RSSE (Recommendation System in Software Engineering) that allows searching for software components in growing repositories.
- Mantissa extracts the query from the source code of the developer, employs CSEs such as GitHub to search for available source code, and ranks the retrieved results using the Vector Space Model (VSM).
- Various techniques from the area of Information Retrieval (IR) are employed in order to best rank the results.
- Additional source code transformations are performed so that each result can be ready-to-use by the developer.
- Each result is presented along with relevance scoring and useful information indicating its original source code, its control flow, as well as any external dependencies.
- This project contains work from the MEng thesis submitted while being an undergraduate student at Aristotle University of Thessaloniki.
- The system is available at `http://mantissa.ee.auth.gr`

Conferences

Dmje Lt *London, UK*

Devoxx UK *May. 2017*

- Devoxx is a two-day annual conference that welcomes over 11,000 developers to events in Belgium, France, UK, Poland, Morocco & the USA. Attended several sessions, mainly related to the Java Language, Architecture, Cloud, Big Data & Machine Learning.

Aristotle University of Thessaloniki *Thessaloniki, Greece*

7TH Panhellenic Electrical and Computer Engineering Students Conference *Apr. 2014*

- A three-day conference which aims to gather every Electrical and Computer Engineering student from around Greece and give insight into the latest technological breakthroughs and the new challenges of the market. The conference, entitled "Dismantling the Problem: The Engineers of the Modern Days" included talks as well as technical sessions.
- Successfully organised a programming contest as part of "Auth Programming Contests" in the last day of the conference. The competition attracted more than 30 students.

Seminars

Amazon *London, United Kingdom*

AWSome Day *Jan. 2017*

- A one-day training event delivered by AWS technical instructors. The day included a session highlighting why customers are using AWS to develop, deploy and operate secure applications and IT services, as well as technical sessions that covered the AWS foundational services such as Amazon EC2, Amazon S3 and Amazon RDS.

MathWorks *Edinburgh, United Kingdom*

Data Analytics with MATLAB *Sep. 2015*

- During this seminar experienced MathWorks engineers presented how MATLAB can be used to accelerate algorithm development and exploration, and reduce development time for machine learning, image processing and computer vision applications, using live application examples.

GDG Thessaloniki *Thessaloniki, Greece*

Google Developer Days CodeLab on the new DART Language *Feb. 2014*

- Two-day event organised by Google Developers Group Thessaloniki which included tech talks as well as workshops on the DART language.

Aristotle University of Thessaloniki *Thessaloniki, Greece*

Web and Mobile app Development *Sep. 2011 - Mar 2012*

- A 40-hour seminar covering technologies including, among others, HTML, CSS, JavaScript, PHP, and MySQL.
- Developed a board game website for tichu players.

Meetups

Agile Testing *London, United Kingdom*

Testable Software Architecture with Aslak Hellesoy! *Mar. 2017*

- During that session, Aslak Hellesoy, the creator of Cucumber, suggested ways for designing and building testable software architectures, using techniques like Ports, Adapters, and Contract tests.

London Java Community *London, United Kingdom*

Java Language and Platform Futures: A Sneak Peek *Mar. 2017*

- In that session, Java Language Architect Brian Goetz offered a sneak peek at some of the features currently under exploration for future versions of Java, both short- and long-term.

Sky *London, United Kingdom*

The inside story of using Cassandra and Continuous Integration at Sky *Nov. 2016*

- During this meetup, two of Sky's principal engineers talked about their experience with Cassandra and Continuous Integration in Sky's Online Video Platform.

Expedia *London, United Kingdom*

Multi-Variate (A/B) Testing at Expedia *Oct. 2016*

- An introduction to Expedia's A/B testing framework, including an overview of the technologies used and the hard lessons learned along the way.

Competitions

Hotels.com *London, United Kingdom*

Hotels.com Winter Hackathon *Feb. 2017*

- A 24-hour internal hackathon entitled "Fast on Fones R Us".
- Developed and presented a Q&A bot that consumes Hotels.com's APIs and uses decision trees in order to facilitate hotel search, alongside a team of 7 software developers.

Google *Virtual*

Google Code Jam 2014 *Apr. 2014*

- An international programming competition hosted and administered by Google.

IEEE *Virtual*

IEEEXtreme Programming Competition 7.0 *Oct. 2013*

- A global challenge in which teams of IEEE Student members -advised and proctored by an IEEE member, and often supported by an IEEE Student Branch- compete in a 24-hour time span against each other to solve a set of programming problems.

IEEE *Virtual*

IEEEXtreme Programming Competition 6.0 *Oct. 2012*

- A global challenge in which teams of IEEE Student members -advised and proctored by an IEEE member, and often supported by an IEEE Student Branch- compete in a 24-hour time span against each other to solve a set of programming problems.

Greek Ministry of Education, Research and Religious Affairs *Virtual*

"Lysias" Competition *Mar. 2002*

- LYSIAS is an annual Internet-based Panhellenic competition for students. Participants are required to answer 35 standardized questions (multiple choice and True/False, covering a range of school subjects (Mathematics, Physics, Chemistry, Biology, Information Technology, Ancient and Modern Greek, History, Geography, Economics, Art) as well as general knowledge questions.
- Qualified for final round (top 64 students in Greece).