

# Sakis Kasampalis

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## CONTACT INFORMATION

Eindhoven  
The Netherlands

mobile: +31 (0)64 562 4937  
e-mail: s.kasampalis@zoho.com

## STUDY INTERESTS

software architecture, functional programming, computer science

## PORTFOLIO & REFERENCES

I am the author of the book [Mastering Python Design Patterns](#) and I was a technical reviewer of the books [Mastering Object-Oriented Python](#) and [Learning Python Design Patterns](#). My personal projects are listed on my [homepage](#). If you like hardware prototyping check my [videos](#) on vimeo. My public recommendations are on [LinkedIn](#).

## PROFESSIONAL EXPERIENCE

**Mentech**, Eindhoven, The Netherlands

*Software Architect*

**May 2022 – Present**

Focusing on the implementation of scalable, secure, performant, cost-effective, and compliant software solutions. Both cloud-based (mainly AWS) and on-premise.

Keywords: *AWS (proficient), Terraform (beginner)*

**Philips** Healthcare (via **YER**), Eindhoven, The Netherlands

*Senior Software Engineer*

**September 2017 – March 2022**

Worked in different teams and departments:

- Created a Python API for training, saving, and restoring Deep Learning digital pathology detectors. When combined with the rest of the platform, it's possible to create a Tissue Detector in less than an hour.
- Increased the Python testing coverage from 16% to 36%.
- Contributed to the design and (re)implementation of the calibration service and app. We focused on best practices and achieved a TIOBE TiCS score A on both products.

Keywords: *C++ (proficient), Python (proficient), TypeScript (beginner), Docker (beginner), C# (beginner)*

**Pycom**, Eindhoven, The Netherlands

*Full-Stack Developer*

**September 2016 – August 2017**

Pycom was a startup that provided low-cost, low-power, Python programmable devices that enable companies to build IoT-ready products that can connect to the most popular LPWANs available.

- Member of the Pybytes development team. Pybytes was a middleware Web platform for IoT device management and data visualization.
- Developed a platform that integrates with Ingram Micro for completely automating the product, order, and stock management of pycom.io. The Ingram Micro integration saved Pycom thousands of euros of costs and hundreds of man-hours.
- Automated Pycom's Kickstarter's invoice generation using Xero's Python API. The Xero Integration saved the company at least three weeks of manual work.

Keywords: *NodeJs (beginner), Express (beginner), MongoDB (beginner), LoopBack (beginner), Python (proficient)*

**Mapscape** (via **TMC**), Eindhoven, The Netherlands

*Software Engineer*

**November 2015 – July 2016**

Worked in the NDS compiler refactoring team. Our main goal was to create an API for constructing NDS compilers dynamically. To do that we created a modular NDS compiler, in contrast to the monolithic legacy interface it used to have. To make sure that our refactoring did not cause any regression, we have developed specialised regression testing tools and our code was backed by unit tests/mocks. Other goals of the team include automatic building block dependency and sqlpp11 adoption.

- Created an NDS regression testing tool which increases our confidence that our changes are regression-free.
- Created an API for using cached prepared statements with Mapscape's proprietary DBs. That increases the performance and the security of our queries.
- Released the first version of the modular compiler. During that process we cleaned up and added reusable components to a large amount code (dropped from a scale of thousands of lines to a scale of hundreds).

Keywords: *C++11 (proficient), SQLite (proficient), Python (proficient), Google Test/Mock (beginner)*

**ASML** (via **Sioux**), Veldhoven, The Netherlands

*Back-end Software Engineer*

**October 2014 - October 2015**

My focus was on the back-end parts of Cerberus, but I was also involved in front-end development. My first large Cerberus back-end task was to migrate the legacy monolithic Java importers to a staging approach. The staging importers use HANA as the main source of information, and MySQL + Scala for the ETL (Extract, Transform, and Load) parts. For the front-end I developed two Scala Play applications for listing the users of a CUG (Closed User Group) and for viewing extended LDAP user information.

- Migrating the Java importers to staging increased their performance significantly (more than 50% increase).
- The Scala Play applications helped my team to quickly identify problems with users that can't access Cerberus due to different issues (e.g. out-of-sync passwords, password expired, missing privileges).

Keywords: *MySQL (proficient), Scala (beginner), Play (beginner), ETL (proficient), Java (proficient), PHP (proficient)*

**Mapscape**, Eindhoven, The Netherlands

*Software Engineer*

**November 2011 – September 2014**

During this project at Mapscape I worked as a member of the Test Tools team. This team focuses on creating software that validates, tests, and improves digital map data. One of my main tasks was to implement from scratch a functional test (C++ program) called Navigability, which is used to detect road network errors. Another important activity was contributing in creating a regression test suite for the Test Tools team. My rest activities included fixing bugs and adding new features to existing products.

- Due to its well design and careful implementation Navigability turned out to be one of the fastest (about 3 times faster than the other tests) and most scalable (for example no problem to run it for the whole Europe) tests.
- The regression test suite increased test coverage from 0% to about 80%.
- The number of bugs decreased by 5% within 1.5 year.

Keywords: *C++ (proficient), Ruby (proficient), SQLite (proficient), Bazaar (proficient), Rails (beginner), Scrum (proficient), KanBan (beginner)*

EDUCATION

**Technical University Of Denmark**, Kongens Lyngby, Denmark

*Master of Science in ICT Engineering*

**August 2008 - October 2010**

- Thesis: Copy On Write Based Filesystems - Performance Analysis and Implementation

Keywords: *programming, software engineering, agile development, game development, embedded systems, operating systems, artificial intelligence, security*

**Alexander Technological Educational Institute**, Thessaloniki, Greece

*Bachelor of Science in Computer Engineering*

**September 2003 - August 2007**

- Thesis: Overview of the Semantic Web and Design of a Web Ontology for European citizens

Keywords: *programming, data structures, software engineering, artificial intelligence, computer architecture, operating systems, networking, databases, security*

LANGUAGE

English (very good), Dutch (reasonable), Greek (native)

SKILLS