

# Ioannis Koutoulakis | CV

CB1 9GQ – Cambridge, UK

☎ (+44)07780594985 • ✉ koutoulakis.ioannis@gmail.com

🌐 <https://www.linkedin.com/ioannis-koutoulakis>

<https://koutoulakis.github.io/>

## Profile

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Dedicated, results driven professional with four years of experience developing mostly in C++ and JavaScript. I enjoy combating challenging algorithmic problems, with a focus on time complexity and scalability. I have designed, documented, implemented and maintained both enterprise grade cloud solutions and mission critical embedded device software. Computer savvy, with research experience in data mining and genuine enthusiast about machine learning techniques and frameworks, namely deep learning and tensorflow. Firm open source contributor, with a multi starred activity recognition repository. Bilingual in English/Greek. I am currently seeking permanent positions that will allow me to further improve my software engineering skills, especially in distributed systems.

## Work Experience

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### Software Engineer

Autodesk, Cambridge, UK,

April 2020– Present

Architecture, engineering, construction, manufacturing, media, education, and entertainment.

#### Responsibilities:

- Extend, fix and maintain a cloud solid modeling microservice used in core Autodesk education products such as Tinkercad (~10 million user base). (Typescript, Nodejs, Docker, C++)
- Integrate analytics within geometry components (C++) & create/maintain internal analytic dashboards (ELK stack)
- Stress/Performance testing of web services. (Artillery-js, Taurus within Blazemeter).
- Creation of new automation pipelines for geometry components (CI/CD-Jenkins-groovy).

#### Achievements:

- Code improvements that achieved a 99.95% 5xx SLO.(Javascript)
- Ported existing desktop application components into Apple Silicon (cmake)
- Worked with customers to onboard them on new API services.

### Software Engineer

James Fisher Prolec, Southampton, UK,

February 2019– March 2020

Construction/Marine industry.

**Responsibilities:**

- Extend, fix and maintain mission critical safety systems for excavators. (Qt, C++)
- Simplify and extend construction site hazard android application (React, Javascript)
- IoT solution designing/prototyping and helping customers with new/current IoT installations. (Qt, C++, microservices, NodeJS, containerisation)

**Achievements:**

- Invented easier ways through desktop app tutorials to calibrate newly purchased systems, that allowed more inexperienced service engineers to perform the initial excavator calibration, which made the products easier to distribute in a larger scale.
- Received excavator operating licence, for vehicles under 10 tons.

**Full Stack Software Engineer**

*Telsis, Fareham, UK,*

*October 2017– January 2019*

Telecommunications industry.

**Responsibilities:**

- Designed, implemented, tested and maintained enterprise grade voip telephony solutions (call center). (TypeScript, Angular, NodeJS for backend with MySQL, in a Red Hat Enterprise containerised microservices REST API architecture).
- Rebranded, fixed, supported, maintained and helped new and existing customers with an android softphone application. (Android Studio, Java, Google PlayStore managment).
- Fixed and maintained legacy code. (Java, Spring Boot, MySQL)

**Achievements:**

- Created from scratch and maintained a SOAP server as a containerised microservice requested by a client.
- Proposed and created an improved way to measure our product KPIs, saving development time and reducing network traffic.

## Education

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**MSc in Advanced Computing**

*Data Mining, Machine Learning and High Performance Computing,*

*2016–2017*

University of Bristol, UK

GPA – 2.1

**Bsc in Informatics and Telecommunications**

*University of Athens, Greece,*

*2009–2014*

Focus on applied Informatics, GPA – 7.28/10

## Programming Languages, Frameworks & Tools

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**Advanced:** C++, TypeScript, JavaScript, Nodejs, Docker, Git, Java, Python, C, MySQL, Mercurial, Svn, Scrum, Agile Methodologies, Jira, MVC Spring, HTML, CSS, Elasticsearch, L<sup>A</sup>T<sub>E</sub>X, OpenMP, MPI, Matlab/Octave, Weka, Scikit-Learn, Tensorflow

**Basic:** Qt, Maven, Ant, JSP, Google Maps JS api v3, CUDA, Opencv, OpenGL, Bash Scripting

## Publications

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Learning Patterns for Discovering Domain Oriented Opinion Words, Pantelis Agathangelou, Ioannis Katakis, Ioannis Koutoulakis, Fotios Kokkoras, Dimitrios Gunopulos, KAIS 2017