

# CURRICULUM VITAE

**DR. IOANNIS (YANNIS) DOUROS**

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## WORK EXPERIENCE

- Jan 2021 – present      **Computer Vision, Machine Learning and AI Engineer (Self-Employed):** Designing and developing machine learning system solutions for clients on a contract basis. Emphasis on applications related to understanding and modelling human bodies (surface reconstruction, skeleton fitting, posing, skinning), faces (feature tracking, animation) and voice, as well as rooms and buildings (NeRF, SfM, Gaussian Splatting). Notable clients:
- **4Roads** – Geometric and semantic reconstruction of rooms and buildings for the purposes of assessing heat losses and designing energy-efficient heat pump solutions.
  - **Salina Health** – Applied AI for facial expressions and voice analysis for support of mental health assessment and drug discovery.
- Jan 2018 – Dec 2019      **Senior Computer Vision R&D Engineer, Cubic Motion Ltd:** Member of the R&D team, based in Pinewood Studios, London. Development, testing, integration, and performance improvement of facial feature detection/tracking algorithms for the company's facial animations product offerings; development of performance and regression testing for the core libraries. Ad-hoc applied research for on-demand provision of solutions required as per product requirements; close liaison with the Product Development and internal Production teams for requirements and solution design; support and maintenance of the core algorithms' code base.
- Jan 2016 – Jan 2018      **Senior Human Body Modelling Engineer, Metail Ltd.:** Member of the Visualisation Team, working on projects related to the back-end development of the 3D mesh fitting pipeline (triangulated model to point cloud from scanner data) and the garment visualisation pipeline, in frequent collaboration with the company's R&D Team.
- May 2007 – Oct 2014      **Royal Bank of Scotland – Global Banking and Markets:**
- April 2014 – October 2014: Software Developer, Equity Derivatives Technology Projects
- July 2012 – March 2014: Software Developer, Risk and Valuations Technology
- May 2007 – June 2012: Quant Developer - Equity Derivatives Technology
- July 2004 – Apr 2007      **Software Engineer, Symbian Software Ltd.**
- July 2001 – Jun 2004      **Founder and Director, SomaVision Research Services Ltd.**
- Sep 1998 – Apr 2004      **Research Fellow, Department of Computer Science, University College London**

## EDUCATION

- **PhD in Three-Dimensional Human Body Modelling**, Department of Computer Science, University College London.
- **MRes Computer Vision, Image Processing, and Graphics**, Department of Computer Science, University College London.
- **BSc Information Technology**, Department of Informatics, University of Athens, Hellas.

## COMPUTING EXPERIENCE, EXPOSURE AND INTERESTS

Platforms and Ecosystems	Windows, Linux, NVIDIA Jetson
Programming Languages	C++ (11 onwards), Python (inc. NumPy/TensorFlow/Keras/PyTorch), Matlab/Octave, SQL
Methods and Technologies	Computer Vision, Machine Learning, Deep Learning, Surface Reconstruction, Shape Analysis, Object Detection, Motion Tracking, Convolutional Neural Networks, Generative Adversarial Networks, Neural Radiance Fields, Gaussian Splatting
Tools and Libraries	Git (GitHub/SourceTree), SubVersion, CMake, Docker, dlib, OpenCV, CUDA, Intel VTune Amplifier, Blender, MeshLab, Colmap, NerfStudio
Code examples	<a href="https://github.com/idouros">https://github.com/idouros</a>

## TRAINING – COURSES (most recent/relevant)

- TensorFlow Developer – Professional Certificate (Coursera / deeplearning.ai, October 2022) – Certificate [here](#).
- Deep Learning - Specialization (Coursera / deeplearning.ai, January 2021) – Certificate [here](#).
- Machine Learning (Coursera / Stanford Online, June 2020) – Certificate [here](#).

For the full training history, as well as a list of publications, please visit [www.douros.org](http://www.douros.org)

## OTHER QUALIFICATIONS, SKILLS AND INTERESTS

Languages	Greek (native), English (fluent), German (intermediate), Japanese (basic)
Driving	Full UK Driving License.
Other	Photography, Martial Arts, Agriculture, Environmental Issues, Real Estate Investments. Registered NHS Blood and Organ Donor.