

CURRICULUM VITAE

DR. IOANNIS (YANNIS) DOUROS

Tel: +44 (0) 7841 829265 | e-mail: yannis@douros.org

I am a software engineer with several years of experience in the computer vision, mobile computing and finance sectors, founded on a solid Computer Science background (3D Human Body Modelling and Machine Vision) with a strong numerical and mathematical foundation. I code mostly in modern C++ but also have experience with Python, SQL, C#, plus exposure to other tools and languages that I have picked up along the way. I am enthusiastic about problem-solving challenges outside my comfort zone; value robustness and attention to detail; and always enjoy seeing the output of my work becoming part of a well-engineered, production-grade solution.

TECHNICAL EXPERTISE

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
Programming Languages	C++ (11 onwards), Python (inc. NumPy/TensorFlow/Keras/PyTorch), Matlab/Octave, SQL
Tools and Libraries	Git (GitHub/SourceTree), SubVersion, CMake, Docker, dlib, OpenCV, OpenCL, CUDA, Intel VTune Amplifier, Blender, MeshLab, Colmap, NerfStudio
Code examples	https://github.com/idouros

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: <ul style="list-style-type: none">• 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.

TRAINING – COURSES (most recent/relevant)

- Generative Adversarial Networks – Specialization (Coursera / deeplearning.ai, August 2024) – Certificate [here](#).
- 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

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.