

Alexandros Lattas



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Education

Imperial College London | PhD in Computer Science | 2019 – Present | Supervised by Dr S. Zafeiriou and Dr A. Ghosh

Topic 1 | 3D Computer Vision for photo-realistic human avatar generation from unconstrained images

Topic 2 | Human geometry and reflectance acquisition

Imperial College London | MSc in Advanced Computing | 2017-2018

Thesis | High Resolution 3D Face Generation with Generative Adversarial Networks (Python, Tensorflow, Graphics)

Modules | Statistical Machine Learning, Graphics, Reinforcement Learning, Computer Vision, Deep Learning, Finance

Athens University of Economics and Business | BSc Management Science and Technology | 2013–2017

Thesis | Improving control on Tensorflow Queues API (Technologies: Python, C++, Tensorflow) (Merged #10175)

Modules | Software Engineering, Algorithms, Statistics, Databases, Business Analytics, Website Architecture, IT Systems

University College London | School of Management (Affiliate Student) | 2015 – 2016

Modules | Innovation Management, Project Management, Corporate Financial Strategy, Digital Marketing, Psychology

Research & Work Experience

Researcher in Computer Vision (Part-Time) | Huawei Technologies Research & Technology | July 2020 – Present

Working on the intersection of Machine Learning, Computer Vision and Computer Graphics.

Research Assistant in Computer Vision (Part-Time) | Imperial College London | October 2018 – Present

Creating an immense dataset of photorealistic high-resolution 3D human faces, improving the Imperial College Light Stage and researching how Machine Learning can generate photorealistic humans for AR and VR. Published in CVPR, ECCV.

Computer Vision Scientist | Facesoft | October 2018 – June 2020

Worked on generating photorealistic human avatars, facial recognition and behavioural analysis. Published in CVPR.

Software Engineering Research Associate | Business Analytics Lab | July 2016 – June 2018

Undertaken three projects, under the guidance of Prof. D. Spinellis. Subjects: memory forensics, UNIX security bug smells and data-driven software engineering. Published in ICSE.

Econometrics Research Assistant | Centre of Planning and Economic Research (KEPE) | August 2014 – February 2015

Performed a linear analysis of the oil market in Greece and indicated anomalies to the Greek Competition Commission.

Technical Consultant Intern | Oracle | March 2017 – May 2017

Customised Oracle Access Manager for three customers by creating Java plug-ins, Servlets and branded pages. Presented practical tutorials and for Oracle's Machine Learning powered cloud security platform to high officers.

Technical Competencies

Programming Skills | Python, SQL, UNIX, Tensorflow, Pytorch, Menpo, git, PHP, Swift, Java

Other Skills | Machine Learning, Computer Vision, 3D Models, Photogrammetry, Data Visualization

Achievements

Postgraduate Scholarship 2017-2018 | Hellenic Petroleum

Postgraduate scholarship of £24,000, for studies in Advanced Computing at Imperial College London (1 out of 7 total).

Social Impact Award 2014 | Impact Hub Athens

With Blood-e, a novel e-platform for blood donation (€3,000) (1 out of 3 total).

(bloode.org)

5 Honorary Distinctions | Athens University of Economics and business

Awarded by AUEB during my Bachelor's for academic performance, entrepreneurship endeavours and exceptional projects.

Co-founded and led Junior Achievement Alumni Greece | June 2013 – February 2017

Entrepreneurship network with more than 200 members and now golden member among numerous European entrepreneurship networks. Co-founded it and started as Project Manager, organising more than 10 seminars, networking events and contests. Since 2015, responsible for our brand image and international events. (ja-alumni.eu/network)

Selected Publications



scholar.google.com

- **Lattas A**, Moschoglou S, Ploumpis S, Gecer B, Ghosh A, Zafeiriou S. **AvatarMe++: Facial Shape and BRDF Inference with Photorealistic Rendering-Aware GANs**. IEEE Transactions on Pattern Analysis and Machine Intelligence 2021 (TPAMI).
- Li S, Waheed U, Bahshwan M, Wang L, Kalossaka L, Choi J, Kundrak F, **Lattas A**, Ploumpis S, Zafeiriou S, Myant C. **A scalable mass customisation design process for 3D-printed respirator mask to combat COVID-19**. Rapid Prototyping Journal (2021) (RPJ).
- **Lattas A**, Moschoglou S, Gecer B, Ploumpis S, Triantafyllou V, Ghosh A, Zafeiriou S. **AvatarMe: Realistically Renderable 3D Facial Reconstruction**. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition 2020 (CVPR).
- Gecer B, **Lattas A**, Ploumpis S, Deng J, Papaioannou A, Moschoglou S, Zafeiriou S. **Synthesizing coupled 3d face modalities by trunk-branch generative adversarial networks**. In European Conference on Computer Vision 2020 Aug 23 Springer, Cham. (ECCV).
- Tzirakis P, Papaioannou A, **Lattas A**, Tarasiou M, Schuller B, Zafeiriou S. **Synthesising 3D Facial Motion from "In-the-Wild" Speech**. In 2020 15th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2020) (FG).
- **Lattas A**, Wang M, Zafeiriou S, Ghosh A. **Multi-view facial capture using binary spherical gradient illumination**. In ACM SIGGRAPH 2019 Posters 2019 Jul 28 (SIGGRAPH).

Courses and Certifications

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| Summer School in Machine Learning for Digital English Language Teaching | University of Cambridge | 2017 |
| Quality Software Developer Foundation Certificate in Maintainability | Software Improvement Group | 2016 |
| Software Developer: Foundation | Software Improvement Group | 2016 |