JOAQUIN OLLERO GARCIA

https://joaquinollero.herokuapp.com joaquinollerogarcia@gmail.com

Full-time Software Engineer at Animal Dynamics Ltd., part of the 'Ground Software & Flight Simulation' team working on the simulation of unmanned aerial vehicles (UAVs) and fleet management systems using primarily C++, Unreal Engine 4, Qt & Qml and JavaFx. Holder of an MSc in Computer Games Technology with Distinction (City, University of London, United Kingdom) and a long-term MSc in Computer Engineering (University of Granada, Spain). My areas of interest are robotics, tools and videogames development, machine learning and mobile health systems. I consider myself a passionate of technology, which I think is a form of expression that can be used to improve the world.

WORK EXPERIENCE

SOFTWARE ENGINEER — OXFORD, UNITED KINGDOM
ANIMAL DYNAMICS LTD.
April 2018 – Present

- Member of the 'Ground Software & Flight Simulation' team.

- Working in the simulation of "Skeeter", a small-scale drone based on a dragonfly, and "Stork", a versatile logistics unmanned aerial vehicle designed to transport heavy loads.

- Programming mainly on C++, to expand and maintain the backend, architecture and proprietary libraries (core, math, physics, messaging…). Producing realistic and interactive simulations using Unreal Engine 4 (design, gameplay, UI…) and Qt & Qml and JavaFx to design UI focused tools (real time visualization, maps, connectivity…) used by other development teams.

- Contributions to the in-house fleet management software to handle multiple autonomous vehicles.

- Responsible of software packages releases for clients and actively participating in demonstrations to customers and recruitment processes.

ANDROID WEAR AND WEB DEVELOPER — REMOTE CONTRACTOR
UNIVERSITY OF TWENTE
June 2017 – October 2017

Development of a system composed by a standalone Android Wear 2.0+ smartwatch application and a Python 3.X, Flask, MongoDB, HTML5, CSS (Bootstrap), JavaScript and chart.js web application allocated in the cloud to monitor cancer and reduced mobility patients. The system collects data via the sensors of the smartwatch and sends it to the web server application, where it is stored and can be visualized or downloaded as ready-to-work Python 3.X/MATLAB scripts.

WEB DEVELOPER (INTERNSHIP) — GRANADA, SPAIN
UNIVERSITY OF GRANADA
April 2015 – October 2015

Management of the website of the Vice-Chancellorship of Student Affairs of the University of Granada by creating new content and improving the already existing structure.

EDUCATION

MSC IN COMPUTER GAMES TECHNOLOGY — LONDON, UNITED KINGDOM
CITY, UNIVERSITY OF LONDON
September 2016 – September 2017

Grade: First class (1st) / Distinction (77.94%).

Modules: Object Oriented Programming in C++ (76.4%), Game Development Process (79.2%), Research Methods and Professional Issues (70.6%), Systems Specification (69.9%), Computer Graphics (80.6%), Computer Games Architecture (77.0%), Digital Signal Processing and Audio Programming (85.7%), Game Physics and Artificial Intelligence (83.9%).

Dissertation: "*Prediction of Future States of Features Extracted from Deep Reinforcement Learning Networks*" (78.0%).

BSC & MSC IN COMPUTER SCIENCE LAUSANNE, SWITZERLAND
ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE (EPFL)
September 2011 – September 2012

1-year Erasmus exchange programme composed by ten modules of the BSc and MSc in Computer Science taught in English and French.

LONG-TERM MSC IN COMPUTER ENGINEERING GRANADA, SPAIN
UNIVERSITY OF GRANADA
September 2008 – September 2016

Grade: Upper second class (2.1) (65.4%).

Dissertation: "*Mobile Health System for Evaluation of Breast Cancer Patients during Treatment and Recovery Phases*" (95.0%).

PUBLICATIONS

2018: Ollero, J. and Child, C., 2018, June. "Performance Enhancement of Deep Reinforcement Learning Networks Using Feature Extraction". In International Symposium on Neural Networks (pp. 208-218). Springer, Cham.

2017: Ollero, J., Moral-Munoz, J. A., Rojas, I., & Banos, O., 2017, April. "Mobile Health System for Evaluation of Breast Cancer Patients during Treatment and Recovery Phases". In International Conference on Bioinformatics and Biomedical Engineering (pp. 653-664). Springer, Cham.

SKILLS

Technical:
Main:
- C++, Python, Android and Android Wear 2.0+.
- Unreal Engine 4.
- Qt, Qml, JavaFX.
- Web development using: HTML 5, PHP, CSS, Bootstrap, JavaScript, p5.js, nvd3.js, chart.js.
- IDEs: Microsoft Visual Studio, PyCharm, Android Studio.

Knowledge of:
- Open GL 4.X, GLSL, Bullet, FMOD, SFML.
- CMake, protocol buffers, ZMQ.
- Unity 3D, C#, XNA.
- Flask, Numpy, Matplotlib.pyplot, TensorFlow, Keras.
- MongoDB, MySQL.
- MatLab, Simulink.

Soft:
- Ability of learning and adapting to new technologies and programming languages.
- Team-working and ability to work independently.
- Creative when solving problems and facing unseen situations.
- Communication and leadership skills: Staff-Student Liaison Committee student representative of MSc in Computer Games Technology (City, University of London).
- Organizational skills, tasks planning and time management.
- Comfortable and natural when presenting results.

INTERESTS

I enjoy playing videogames and keeping up to date with the latest trends in the games industry. I have always said that I do not play videogames just for fun, but also because they inculcate me with important values. My favourite videogames are "*The Witness*", "*Metroid Prime*", "*Portal*" or the "*Halo*" franchise.
Music has always accompanied me throughout my whole life. I usually listen to hundreds of new albums released every year, while keeping track of them in a personal database. Reading and writing have helped me to get to know me better and books like "*Atlas Shrugged*" by Ayn Rand have changed my life.
Travelling and animals are two of my other passions, as I collaborated with a foster in my hometown.