JUAN OLAYA

(BSc) COMPUTER ENGINEERING

(MSc) COGNITIVE SYSTEMS AND INTERACTIVE MEDIA

OpenProcessing

Github Repository

Youtube Videos

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juanolayafi@gmail.com

EDUCATION

- **COGNITIVE SYSTEMS AND INTERACTIVE MEDIA**
  Master's Degree taught in English
  Pompeu Fabra University
  Barcelona, Spain (2014)

- **COMPUTER ENGINEERING**
  Bachelor's Degree
  Pontifical Xavierian University
  Bogotá, Colombia (2011)

TEACHING EXPERIENCE

Two-years experience as associated teacher in the university School of Arts and Letters in Bogotá-Colombia, in the bachelor Digital Media Engineering for the following lectures:
(2016.2 - Present)

Artificial Intelligence for Video Games
Lecturer. Game design principles, Non-player characters' AI behaviours, Agile game development, Scripting in Unity 3D, Interactive Narrative and Quality Assurance (QA).
(2017.1)
Github Link

Object-Oriented Programming (OOP)
Lecturer. Creative code using the Java library Processing and its web version P5.js. Abstraction from concepts to Classes, Encapsulation, Inheritance, Polymorphism and Collision detection.
(2017.2 – Present)
Github Link

Computer Graphics
Lecturer. Computer vision, particle systems, communication among computers with OSC protocol, sound visualization, integration with Arduino and Kinect.
(2016.2 - Present)

Virtual Reality
Lecturer. Principles of VR, Moving in VR with Unity 3D, VR Reticle, VR Game Mechanics, Cardboard, VR frameworks and its patterns and Agile game development.
(2017.2 – Present)
Github Link

Creating Video Games
Lecturer. Paper prototype, Game designer principles, Agile game development, Game mechanics, User engagement, Industry awareness and Game Design Document (GDD).
(2017.2)

IT for Industries
Lecturer. Lean startup, Business model patterns and canvas, Industry analysis, Monetization and Business pitch.
(2017.1 – Present)

Software Engineering and HCI
Lecturer. Requirements elicitation, Foundations of Human-Computer Interaction (HCI), UML diagrams, Software patterns, Project Management, Agile software development and User Experience (UX) foundations.
(2017.2 – Present)

RESEARCH EXPERIENCE

- **XIM EXPRESSIONS – Master's Thesis**
  Researcher. We designed and executed an experiment in the field of Human Computer Interaction (HCI) in order of studying human behaviour exposed to visual stimuli within a multi-wall system, Cave Automatic Virtual Environment (CAVE). In this experiment we analysed, whether affective visuals signals are effective to provide social capabilities to a CAVE system and whether these signals, are useful to increase the performance of users, in certain Full-Body interactive tasks.
  Barcelona, Spain (2014)
  Experiment Setup Link

- **AGILE CONSTRUCOLECTIVA – Undergraduate Thesis**
  Researcher. We conducted a research to optimize the Software Engineering process, through the use of Agile methodologies and Computer-Supported Cooperative Work (CSCW). As a result, a Methodological Guide was developed for the management of the development of software projects. This project obtained the first position in the fair of projects of Computer Engineering, Expo Poster 2010.
  Bogotá, Colombia (2011)
  Thesis Link

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INFORMATION TECHNOLOGY EXPERIENCE

- **BAKER TILLY – Audit Firm**
  IT Auditor. Assessment of technology environments with the aim of identifying risks that affect the reliability of the Internal Control of IT.
  Bogotá, Colombia (2015)

- **AMÉZQUITA – Audit Firm**
  IT Auditor. Formulate opportunities for improvement to strengthen IT processes associated with the appropriate use of technology resources.
  Bogotá, Colombia (2016)

ADDITIONAL QUALIFICATIONS

Unity Certified Developer
Certification ID : 201707UCD2353
Unity Certification Link
Bogotá, Colombia (2017)

IELTS – Certificate of Proficiency in Academic English
Level B2 – Upper Intermediate
London, UK (2012)

South Thames College – Academic English
London, UK (2012)

Malvern House – General English
London, UK (2011)

TECHNICAL SKILLS

PROGRAMMING LANGUAGES: C#, Java, JavaScript, C/C++.

TOOLS: Unity 3D Game Engine, Microsoft Kinect sensor, SPSS Statistics, Arduino, Processing IDE, Open Sound Control (OSC) protocol, Microsoft Project and Eclipse IDE.

DESIGN METHODOLOGIES: Requirements elicitation, User stories management, Software patterns development and Unified modelling language (UML) for: Class Diagram, Use case diagram, Flowchart and Sequence diagram.

IT PROJECT DOCUMENTATION: Software Project Management Plan (SPMP), Software Architecture Document (SAD), Software Design Document (SDD), Business Model Canvas, Game Design Document (GDD) and Technical Design Document (TDD).

REFERENCES

- **Pedro Omedas**
  Researcher
  pedro.omedas@upf.edu
  Laboratory of Synthetic Perceptive, Emotive and Cognitive Systems (SPECS)
  Pompeu Fabra University
  Barcelona, Spain

- **Narcís Parés Burguès**
  Tenure Associate Professor
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  Cognitive Media Technologies (CMTech)
  ICT Engineering
  Pompeu Fabra University
  Barcelona, Spain

- **María Consuelo Franky**
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  Bogotá, Colombia