

ausiàs pomés

apomes.com

apomes@gmail.com

 @apomes

languages

Catalan & Spanish, native
English, fluent
Portuguese, intermediate
German, basic

coding

Over 5000 lines:

Objective-C, C#, XVR
scripting, C++, Java

Over 1000 lines:

OpenGL, GLSL, Swift,
Python, Matlab,
Javascript, PHP

Familiar:

R, \LaTeX

source control

Git & SourceTree

ide

Xcode, Visual Studio, Unity,
XVR, NetBeans,
LabWindows

web & cloud

Parse cloud, HTML5
Canvas, Backbone.js,
Bootstrap, Flask, Jinja2

3d & cad

3D Studio MAX, Maya,
Blender, AutoCAD,
Microstation

video & audio

Over 500 h:

Final Cut Pro X, Premiere,
After Effects, Motion

Over 100 h:

Boujou, Mocha,
Photoshop, Illustrator,
Knockout

Familiar:

Ultimatte, AdvantEdge,
Elastic Reality, Reason,
Rebirth

experience

- 2016-Present **Accenture Digital** Madrid
VR Team Lead
Coded full-stack Hololens app for Airbus Group (Unity, Docker).
- 2015-2016 **Airbus Group** Newport, UK
Immersive Collaboration Engineer
Implemented monitoring and logging pipeline for Unity (NLog, RabbitMQ, Logstash, Elasticsearch, Kibana). Integrated Opus audio codec in Unity. Coded full-stack Hololens app for Farnborough Airshow 2016 (Unity, Docker).
- 2008-2015 **Event Lab, Universitat de Barcelona** Barcelona
Research Assistant
Research in cognitive psychology using virtual reality (VR). Creation of VR environments, experimental design and data analysis (XVR, Unity, Matlab, R). Worked on Spanish national grant (Responses of People in Immersive Virtual Environments, ref. PSI2011-27930) about the objective measure of the sense of presence in VR using reinforcement learning (Unity, Swift, Objective-C, C++).
- 2012-Present **kobiuter.com** Barcelona
Freelance iOS Developer
Development and updates of an iPhone app (Xcode, Objective-C) complete with cloud functionality to display use statistics on a website (Parse, Backbone.js).
- 2006-2007 **Sener, Ingeniería y Sistemas** Barcelona
Paid intern
Worked in the shipbuilding software package FORAN (Visual Studio, C++, Qt). Coded script to measure code cyclomatic complexity (Python).
- 2005-2006 **Hewlett Packard** Sant Cugat del Vallès
Paid intern in the Customer Assurance Department
Developer for proactive maintenance software for large format printers (XML).
- 1998-2005 **Facultat de Nàutica de Barcelona** Barcelona
Paid intern
Developed Global Maritime Distress and Safety System simulators (LabWindows, C). Created multimedia academic materials (Macromedia Director, Lingo).

education

- 2001-2013 **BS + MEng** in Computer Science Universitat Politècnica de Catalunya, Barcelona
Specialization in Visualization, Virtual Reality, and Graphic Interaction. Master's Thesis in progress.
- 1996-2000 **BS** in Marine Engineering Universitat Politècnica de Catalunya, Barcelona
+1 year in Naval Architecture.

teaching experience

- 2002-2004 **Universitat Politècnica de Catalunya (UPC)** Barcelona
Taught an intensive course called "Non-linear video editing in Adobe Premiere". It included an introduction to digital compositing in Adobe After Effects.

awards

- 2010 **Euro-Mediterranean Contest** KEDGE Business School , Marseille
Award for the most socially responsible idea (2000€). Presented a business plan (Smart Sprinkler Application Solution) with one other collaborator to a tribunal of 10 professors and potential investors.

start-ups

- 2015-Present **Résumé builder web app for the Brazilian market** Barcelona
heroesmaker.com
Set the foundation for the UX/UI including layout, concept and branding. Built prototype as proof of concept (Python, Flask, Jinja2, \LaTeX / X_{\LaTeX}). Geographically distributed team of 6. Our glue is a mix of Skype, Rocket.Chat and Trello.
- 2012-Present **iPhone app "Lista by kbiuter"** Barcelona & Athens
kbiuter.com
Idea completely developed (team of 3) from the first sketches used in designing the UX/UI to the software design, programming, localization and commercialization through the Apple App Store (Objective-C, Parse cloud, Backbone.js).
- 2009-2010 **Smart Sprinkler Application Solution** Barcelona
Developed idea and business plan (team of 4) to optimize watering and save resources using IoT sensors and weather APIs. Received an award in Marseille.

small projects & hacks

open source contributions: *github.com/apomes* **Bitcoin node:** self-hosted full Bitcoin node **Storj node:** self-hosted storjshare-cli node (*storj.io*) **iPad app:** implemented *Screen-Space Ambient Occlusion* algorithm (OpenGL ES 2.0, GLSL, Objective-C) **Kinect game:** developed (team of 4) casual game (OpenGL, OpenSceneGraph, Bullet physics engine, Kinect SDK, 3D Studio Max) **HTML5 app:** coded two algorithms to compute the convex hull of a set of points (HTML5 Canvas, Javascript) **iPad eBook:** typeset and published a multi-touch eBook (ISBN: 978-84-616-1136-2) (iBooks Author).

shorts & movies

Worked as **digital compositor** and **rotoscoper** on eight short films and two movies, two of which featured in the *Sitges Film Festival*. View filmography in *imdb.com*.

interests

professional: computer graphics, machine learning, mobile dev **books:** Ready Player One, The Picture of Dorian Gray **people:** Elon Musk, Andreas Antonopoulos, Philippe Starck **sports:** capoeira, yoga, swimming **general:** cryptocurrencies, Lego, economy, sustainability

publications

articles in peer-reviewed journals

Patterns of Activation and De-Activation Associated with Spatial Navigation: A Whole Brain, Voxel-Based Study
Salgado-Pineda, P., Landin-Romero, R., Portillo, F., Bosque, C., Pomés, A., Spanlang, B., Franquelo, J. C., Teixido, C., Sarró, S., Salvador, R., Slater, M., Pomarol-Clotet, E., McKenna, P. J.
Cortex (submitted for review). 2016

Examining Hippocampal Function in Schizophrenia Using a Virtual Reality Spatial Navigation Task

Salgado-Pineda, P., Landin-Romero, R., Portillo, F., Bosque, C., Pomés, A., Spanlang, B., Franquelo, J. C., Teixido, C., Sarró, S., Salvador, R., Slater, M., Pomarol-Clotet, E., McKenna, P. J.
Schizophrenia Research. 2016

Influence of Music on Anxiety Induced by Fear of Heights in Virtual Reality

Seinfeld, S., Bergstrom, I., Pomés, A., Arroyo-Palacios, J., Vico, F., Slater, M., Sánchez-Vives, M. V.
Frontiers in Psychology. 2015

How to Build an Embodiment Lab: Achieving Body Representation Illusions in Virtual Reality

Spanlang, B., Normand, J. M., Borland, D., Kilteni, K., Giannopoulos, E., Pomés, A., González-Franco, M., Marcos, D. P., Palacios, J. A., Muncunill, X. N., Slater, M.
Frontiers in Robotics and AI. 2014

Drift and Ownership Toward a Distant Virtual Body

Pomés, A., Slater, M.
Frontiers in human neuroscience. 2013

Touching the Void: Exploring Virtual Objects through a Vibrotactile Glove

Pomés, A., Giannopoulos, E., Slater, M.
The International Journal of Virtual Reality. 2012

Immersive Journalism: Immersive Virtual Reality for the First-Person Experience of News

de la Peña, N., Weil, P., Llobera, J., Giannopoulos, E., Pomés, A., Spanlang, B., Friedman, D., Sánchez-Vives, M. V., Slater, M.
Special Issue on Presence, PRESENCE: Teleoperators and Virtual Environments. MIT Press, 2010

international peer-reviewed conferences/proceedings

Neural Correlates of Spatial Navigation in Healthy Subjects

Landin-Romero, R., Salgado-Pineda, P., Pomés, A., Spanlang, B., Slater, M., Pomarol-Clotet, E., McKenna, P. J.
11th World Congress of Biological Psychiatry, 2013, Kyoto, Japan

Using 3D Virtual Environments to Assess Hippocampal Function During Spatial Navigation. An FMRI Study

Pomés, A., Spanlang, B., Landin-Romero, R., Salgado-Pineda, P., Slater, M., Pomarol-Clotet, E., McKenna, P. J.
8th IBRO World Congress of Neuroscience [Poster Session], 2011, Florence, Italy

Using 3D Virtual Environments to Assess Hippocampal Function During Spatial Navigation. An FMRI Study

Pomés, A., Spanlang, B., Slater, M., Landin-Romero, R., Salgado-Pineda, P., McKenna, P. J., Pomarol-Clotet, E.
International Symposium on Learning, Memory and Cognitive Function. Mechanisms, Pathology and Therapeutics, 2011, Valencia, Spain

Mimicking Someone Else Is Being Someone Else?

Spanlang, B., Pomés, A., Landin-Romero, R., Salgado-Pineda, P., Slater, M.
8th IBRO World Congress of Neuroscience [Poster Session], 2011, Florence, Italy

Immersive Journalism: Immersive Virtual Reality for the First-Person Experience of News

de la Peña, N., Weil, P., Llobera, J., Giannopoulos, E., Pomés, A., Spanlang, B., Friedman, D., Sánchez-Vives, M. V., Slater, M.
Real Actions in a Virtual Environment (RAVE), 2010, Barcelona, Spain

Drift and Ownership Toward a Distant Virtual Body

Pomés, A., Slater, M.
Body Representation in Physical and Virtual Reality with Application to Rehabilitation [Poster Session], 2010, Centro Stefano Franscini, Ascona, Switzerland