CIPRIAN FLOREA

ciprianf.res@gmail.com

SOFTWARE ENGINEER

+358 41 7552675

WORK HISTORY

Research and Teaching Assistant
University of Oulu, Center for Ubiquitous Computing, Oulu, Finland, 2017 to 2019

- Research and development in ubiquitous computing and perception engineering. Part of the unit supervised by Prof. Steven LaValle, co-founder of Oculus VR.
- Researched, designed, and developed virtual and augmented reality applications covering topics such as WebVR, user involvement, 3D user interfaces, 3D game engines, smart city.
- Assisted Dr. Anna LaValle, Oculus research scientist, in teaching a course titled VR Systems and Humans that covered overview of VR systems, overview of human physiology, human perception and neuroscience, perceptual training, comfort and VR sickness, design of human subjects experiments.
- Worked with researchers from different backgrounds including engineers, designers, and user experience (UX) experts.

Software Developer
Playsign Ltd, Oulu, Finland, 2015 to 2017

- Designed and developed interactive urban planning tools, VR apps, and 2D mobile games.
- We developed Co-design by Playing, a co-design, communication and game-like 3D-environments tool, and MindMyths, an immersive mindful meditation VR app.

Programmer
Nyheim Video Game Developers, Oulu, Finland, 2014 to 2015

- Developed a multiplatform digital board game, later published on Steam, Google Play, and App Store.
- Worked with a team of developers that grew to 14 members and included designers, programmers, and artists.

ACADEMIC BACKGROUND

Master of Science in Technology in Computer Science and Engineering
University of Oulu, Faculty of Information Technology and Electrical Engineering, Oulu, Finland, 2018 to 2019

Thesis: Virtual reality interface for the PATIO user involvement tool

Bachelor's in Computer and Software Engineering

Politehnica University of Timișoara, Faculty of Automation and Computers, Timișoara, Romania, 2012 to 2016

Thesis: Co-design by playing

Exchange Scholarship
Oulu University of Applied Sciences, Oulu, Finland, 2014 to 2016

ADDITIONAL TRAINING AND EDUCATION

Workshop: From Reality to Virtuality: The Science and Art of Creating VR Experiences
University of Oulu, Oulu, Finland, 2019

Studied software frameworks, the Unity3D game engine and VR frameworks, foundations of immersive technology, design and implementation of 3D user interfaces, and how to develop multimodal immersive user experiences.

Workshop: Virtual City Models
University of Oulu, Oulu, Finland, 2017

Studied a virtual 3D city pipeline and techniques to acquire, process and visualize urban data.

Oulu Game Lab
Oulu University of Applied Sciences, Oulu, Finland, 2014 to 2015

Training and development program focusing on the gaming industry.

Certificate in Advanced Topics in 3D Computer Graphics
Saguaro Technology Inc., Timișoara, Romania, 2014

Studied 3D computer graphics: the world we see vs. the world we render, patterns used in game engines, optimizing the level of detail, graphic engines, animations and collisions in 3d space, using a shading language to create special effects.

PUBLICATIONS

Florea Ciprian, Alavesa Paula, Arhippainen Leena, Pouke Matti, Huang Weiping, Haukipuro Lotta, Väinämö Satu, Niemelä Arttu, Cortés Orduña Marta, Pakanen Minna Anneli & Ojala Timo (2019). **Extending a User Involvement Tool with Virtual and Augmented Reality**. In IEEE VR 2019.

Alatalo, T., Pouke, M., Koskela, T., Hurskainen, T., Florea, C., & Ojala, T. (2017, June). **Two real-world case studies on 3D web applications for participatory urban planning**. In Proceedings of the 22nd International Conference on 3D Web Technology (p. 11). ACM.

ADDITIONAL PROJECTS

Virtual Library: I helped implement a VR application developed together with the Oulu City Library. Users can explore the Virtual Library through a VR headset.

User Involvement Tool PATIO: I created a VR client for user feedback collection, and a web tool that works as a moderator creation editor. These tools offer an approach to collecting feedback about activities taking place in VR 3D spaces. Through these applications, users can explore spaces and answer geolocated surveys in an interactive and immersive way.

GoNature Augmented: I integrated a plant identification machine learning solution into an online gamified mobile app that collects and identifies plant types using image recognition and crowdsourcing.

Creative Design: A project to practise creative thinking, laser cutting, engraving, materials, and vector graphics skills.

CommentHunter: An Android app for storing messages in a specific location.

LimpingApp: An Android app for measuring gait movement by leveraging a smartphone's accelerometer sensor.

HateSpeechApp: A program for recognizing and categorizing hate speech from reddit comments using natural language processing techniques.

PROFESSIONAL SKILLS

Experienced

C#	Java/Android	VR & WebVR, AR/MR	Unity/Unreal engines	3D UI/UX	RESTful Web API
Git	Game dev	3D graphics	Photogrammetry	Design	3D visualizations

Basics

HTML/CSS/JavaScript /SQL/PHP/Ajax	Bash	UML	C/C++	Natural language processing	Python	2D/3D animation

LANGUAGE SKILLS

English	Romanian	Finnish (beginner)

RECOMMENDATIONS

On request.