

# Degly Sebastian Pava Pava

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## WORK EXPERIENCE

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### Senior Unity AR Engineer, Solution Division

Pretia Technologies

October 2023 - Present, Tokyo, Japan

- Engineered an AR application for 50+ industry clients, including top-tier companies on the Tokyo Stock Exchange's first section.
- Pioneered AR Glasses development under direct partnerships with Qualcomm's AR Developers Pathfinders Program, prioritizing user-centric design, optimizing performance, and ensuring accessibility for a seamless collaborative augmented reality experience.
- Led AR mobile app development from 0 to 100, integrating Twilio for video calling and Unity native plugins for Android and iOS platforms. The application connects a mobile device with any OpenXR enabled headset and enables real-time AR interactions.
- Delivered impactful sessions at Apple Vision Pro laboratories and Qualcomm conferences, resulting in a 15% growth in brand visibility and a 30% surge in interest from potential collaborators, thereby advancing the VR/AR technology landscape.

### Software Engineer XR Operations

Omni Applications LLC - LucidDreams S.A.S

April 2021 - September 2023, United States - Colombia

- In charge of providing Extended Reality solutions across diverse sectors, including Virtual Reality tours, TikTok, Snapchat and Instagram social media filters, game development, and machine learning implementations.
- Developed more than 10 AR experiences and projects that have caused more than 291.4 mil lifetime interactions on Meta Spark Hub.

### Unity 3D Developer

The University of British Columbia

December 2018 - July 2021, Vancouver, Canada

- Successfully brought 4 projects to user-facing production within THE HIVE Laboratory and UBC Medicine, while overseeing their integration into a Virtual Reality environment using the Unity 3D Engine, Node.js and various JavaScript frameworks.
- Provided effective presentations at the BC Tech Summit, engaging around 2000+ industry partners in the assessment of Augmented Reality experiences, including the notable project "The HoloBrain" in collaboration with the Emerging Media Lab and Microsoft Garage.
- Used by almost 100 neuroanatomy students on UBC courses. Also available online as a learning tool for medicine students worldwide.

## EDUCATION

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### ERASMUS MUNDUS JAPAN - MEng, Lighting and XR | MSc in Optics, Image, Computer Vision and Multimedia | Msc of Computer Science

Toyohashi University of Technology | Universite Jean-Monnet | University of Eastern Finland • Japan | France | Finland • 2023 • Recipient of 8 notable academic excellence distinctions and awards. Part of the program's Quality Board.

### Systems and Computer Engineering

Minor in Software Engineering • Universidad Nacional de Colombia • 2019 • Best High School Graduates Full Scholarship

## PROJECTS

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### Pupil Mimicry Phenomenon in Human Interaction with Virtual Agents using Eye-Tracking

Toyohashi University of Techonolgy Japan • January 2023 - Present

- Created interactive Unity environment using OpenXR and Blender for investigating pupil mimicry. Employed C++ and C# scripts for eye-tracking integration, while implementing Dependency Injection and Reactive Programming. Developed on VIVE Focus 3.

### MRI-Derived Brain Volumetric Rendering on HoloLens

Microsoft Garage - The University of British Columbia • December 2018 - July 2021

- Engineered a C++ shader-based methodology to transform Blender created MRI brain scans into volumetric 3D animations on the HoloLens, seamlessly integrating principles of 3D Math, Linear Algebra, Computer Graphics, and OpenGL. Unity used for UX design.

## CERTIFICATIONS & SKILLS

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Certifications: Meta Augmented Reality Developer Professional Certificate | Meta Spark Creator AR Certification | Unity and C# Proficiency | AR games using Vuforia SDK | User Experience & Interaction Design for AR/VR/MR/XR | AR (Augmented Reality) & Video Codec Streaming Services Emerging Technologies | Apple Vision Pro Laboratory attendant

Languages: English, French, Japanese, Spanish