# UE5 Flair's Integration

**UI, Shaders, and Image Algorithms for NPR**

https://github.com/Alitcher/UE5ShaderIntegration.git

---

**Introduction**

This project showcased how integrating Flair's into UE5 opens up to new possibilities for NPR creative expression in digital art and in game development. Intuitive and easy-to-use plugins make digital art more accessible for 3D artists, suiting Unreal Engine's core mission of democratizing access to powerful creative tools.

---

**Motivation**

Unreal Engine is well-known for its photorealistic (PR) style; though there are limited NPR plugins available on the marketplace. Often, artists and developers have to create and use their own NPR solutions and workarounds, which is inconvenient. **Artineering** sees this as an opportunity to expand Flair’s market into UE5 users, especially 3D artists. Thus, the goal of this project is to fill this gap and make NPR more accessible.

---

**Approach**

The transition to UE5 will have a broader user base. Not only should Flair be made familiar to 3D artists and animators, but also to product designers and game developers who may not have used Maya before. This requires the design that resonates with this diverse audience, ensuring Flair in UE5’s experience is as smooth as it in Maya.

---

**Tech Stack - Architecture**

The selection of tools is influenced by the original Flair, as to avoid code duplication, re-use production proven tool sets and simplify future maintenance of code across applications. Although this adaptation seemed straightforward, we still need to redesign the controller, the API and the model to facilitate communication between the Qt view and the UE5 Python API.

---

**Future Improvement**

- Save Function Clarity and Responsiveness
- Delete Function Risk
- **Global** Clarity
- Reskin GUI design

---

**Testing Results**

The testing phase confirmed that the plugin works well with our main target groups, including technical and environmental artists, developers and generalists. The core design of the plugin, such as the **Style Preset** and **Material Preset**, was well-received by participants, aligning with our target group’s needs.

---

**Author:**
Alicia Sudlard  
MSc, Computer Science

**Supervisors:**
1. Ulrich Norlsbath, PhD
2. Santiago Monteadooca, PhD