

# Matt T. Bard

Tools Engineer

## + CONTACT

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## + SKILLS

**Software** Unity, Unreal Engine, Visual Studio, P4V/P4Win, Maya, Zbrush, Photoshop, Substance Designer, Substance Painter, Houdini, World Machine, Jira, and Confluence.

**Technical** Ability to write memory efficient and performant C++, C#, and Python code.  
WPF, Qt(Pyside2), Pymel, Maya Cmds, and Unreal API.  
MVVM design patterns for tools UI.  
Tools UX, Pipeline Architecture, and DCC app integration.

**Art** Highpoly and lowpoly modeling workflows.  
High quality material creation using ZBrush and Substance Designer.  
Extensive knowledge of physically based rendering techniques and real-time lighting systems.

## + WORK EXPERIENCE

**August 2022 – Current** *Crystal Dynamics*

**Title** *Core Tech Engineer*

**Responsibilities** Job title change, but my role was basically the same.  
Developed a custom Houdini integration that utilizes Unreal's systems better than the SideFX plugin.  
Built automated tests for gathering performance data including automatically placing the tests in the world.  
Gather data to identify areas the team can focus on for optimizing.

**Jan 2018 – August 2022** *Crystal Dynamics*

**Title** *Tools and Pipeline Technical Artist*

**Responsibilities** Built various small helper workflow tools in Unreal with C++; rename asset/actor tool, translatable grid, pivot patcher, developer world post-it notes, and an asset gym creator.  
Built a prefab Blueprint type in C++ for kit bashing meshes that allow for per-placement overrides.  
Extended Unreal's C++ content validation system to enforce content naming and creation standards.  
Worked on core tech team to improve the Foundation engine before we switched to Unreal.  
Built and maintain various C# WPF editor tools. Including a new asset browser, tool bar tab widget, Quest system UI, and the editor UI for terrain layer system.  
Worked with Engineering team to provide new tool proposals and UX feedback for content workflows.  
Implemented content validation systems in various parts of the asset pipeline from Maya to Engine data.  
Created WPF MVVM coding standards for all new tools being made.

**Sep 2017 – Oct 2017** *EA Visceral Games*

**Title** *Technical Artist*

**Responsibilities** Worked on Amy Hennig's Star Wars title.  
Profiled levels for memory and framerate issues.  
Built tools in Maya to enforce LOD standards on environment assets.

**May 2014 – Sep 2017** *Crystal Dynamics*

**Title** *Development Artist*

**Responsibilities** Worked on Marvel's Avengers pre-production.  
Worked closely with engineering to test and give feedback on new tools and workflows.  
Built various automated graveyard levels to help organize content for artists.  
Created and enforced asset creation guidelines for environment art content.  
Supported Substance Designer and Painter pipeline with code and content organization.

**Title** *Environment Artist*

**Responsibilities** Worked on Shadow of the Tomb Raider.  
Trained team on Substance Designer workflows as this was new software for the studio.  
Worked closely with Tech Art to find tool needs and pipeline issues.  
Supported levels from block out to shippable at target framerate.  
Shipped Rise of the Tomb Raider.  
Created cinematic assets and environments for various cut scenes in the game.  
Supported optimization and bug fixing efforts in closing months.

**May 2013 – Feb 2014** *Massive Black*

**Title** *Contract 3D Artist*

**Responsibilities** Created game ready assets for Zombie Playground and Emotiv games.

+ *EDUCATION*

**Aug 2011 – Dec 2015** *Cogswell Polytechnical College*

*Bachelors of Art, Digital Arts and Animation, 3D Modeling Concentration*

**Projects** Modeling/Texturing Lead and Script Writer on Project X Short Film.