

Yao Yansi

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OBJECTIVE

A position in CG Industry with special interests in R&D.

EDUCATION

Master Of Computer Science, Graduated in 2007
Capital Normal University, Beijing, China.

Bachelor Of Computer Science, Graduated in 2004
Henan University of Technology, ZhengZhou, Henan, China.

COMPUTER SKILLS

Languages: C/C++, Python, Shell, Perl, x86ASM
Operation Systems: Windows, Linux
Development Tools: MSVC, CodeBlocks, CMake, SVN/Git, Jude, MayaAPI/mel, OpenCollada, OpenGL/GLSL, OGRE, ODE, PhysX, Bullet, MASM
Graphics Tools: Maya, Blender, Photoshop
Others: Design Pattern

EXPERIENCE

Software Engineer September 2013

Renderer R&D Department, **ShangHai CudaTec Technology Development Limited Company**

- Designed, implemented and tested a product-quality Maya plug-in for a renderer. This plugin can translate the following data to renderer:
Geometry(polygon/nurbs/subdiv/particle/nparticle/hair), Instance, Light(point/area/directional/spot/mesh light/user-defined light), Most of Maya internal render nodes(surface shader/displacement shader/shading group/texture/utility and etc), User-defined shader, ShaderGraph, Rendering mode(interactive/IPR/Batch/swatch rendering), AOV.
- Responsible for planning, design, development, collaboration, code review, testing and release. Used agile methodologies in this project development: continuous integration, test-driven development, unit testing and automation testing. And took the responsibility for releasing the package from alpha1 to alpha5.
- Constructed and maintained the code repository server for the team.
- Provided services for test clients and users.

Software Engineer June 2012

Production Department, **Geodo Space Information Technology Limited Company**

- Developed a tornado particle effect for OSG engine.
- Trimmed *ossim* which is a third-party library for our engine.

Software Engineer March 2011

3D Graphics Department, **Institute of Automation Chinese Academy of Sciences**

- Developed a 3D virtual world based on *RealXtend* with the integration of *Kinect*, *OgreHaptics*, fluid surface construction and UI localization.
- Integrated Blender's GPU renderer *Cycles* with parallel rendering middle-ware *Equalizer*.

Technical Director July 2009

Technical Support Department, **Xing-Xing Digital Corporation**, Beijing

- Developed the core module of lip-sync plug-in for Maya. (This plug-in has been registered as the software property with the software copyright registration ID 0183406)
- Developed a product-quality Maya to 3ds format translator for *Redboard Ltd.*
- Developed a rigid/soft body dynamic system for Maya based on *Bullet Physics Engine*.
- Developed a procedural texture which projects the inner region of a closed NURBS to a texture.
- Optimized the modules in pre-check process, and saved 80% time for that process.
- Implemented the core module in the paper: *A System to Reuse Facial Rigs and Animations*.
- Parsed Maya Geometry Cache(*.mc) format and Maya Particle Cache(*.pdc) format.
- Maintained *LiquidMaya*.
- Designed and deployed the SVN server, and developed the backup/restore scripts for the SVN server.

Software Engineer September 2008

System Department, **Tuya Software Corporation**, Beijing

- Participated in the development of TUYA World II which is a 3D virtual world on-line game.

Software Engineer September 2007

Software Development Department, **China Academy of Space Technology**

- Participated in the testing process.

Software Engineer(intern) March 2007

R&D center of Notebook Computer, **Lenovo**, Beijing

- Developed a 3D mini-game for exhibiting the gravity system in *Lenovo's* laptops.

RESEARCH

Master's Thesis:

- *Research and implementation of the 3D operation in virtual environment*

Implementation of the academic paper:

- *A System to Reuse Facial Rigs and Animations*

OPEN-SOURCE PROJECTS

- MyMagicBox (<https://github.com/yaoyansi/mymagicbox>)
Role: Creator
Miscellaneous projects for exercises.
- Maya2renderer(<https://github.com/maya2renderer/maya2renderer>)
Role: Creator
Based on *LiquidMaya*, this project aims to provide a framework to translate Maya data to a renderer. It supports *3Delight*, *Elvishray* and *Appleseed* now.
- MayaExporter(<http://code.google.com/p/mayaexporter/>)
Role: Creator
An experimental project which aims to provide a framework to export Maya data to a renderer. This project is refactored from *ColladaMaya*..

- GPExporter(<http://code.google.com/p/gpexport/>)
Role: Developer
A light-weight exporter for Maya, and I fixed some bugs and did some optimization.
- Simple Cloth Simulation (<http://blog.csdn.net/yaoyansi/archive/2007/09/05/1774002.aspx>)
Role: Creator
Implemented the Mass-Spring module for cloth simulation. Developed an algorithm for computing a general polyhedron's volume. This algorithm is mentioned in *Game Development Gems 6*.
- OpenCollada(<http://code.google.com/p/opencollada/>)
Role: Developer
Simplified the 3ds export process with *lib3ds* library and fixed some bugs.
- GPUSPHsim (<http://code.google.com/p/gpusphsim/>)
Role: Developer
Implemented the fluid surface construction using Meta-ball algorithm.