Yao Yansi

yaoyansi@gmail.com
+86 1352-070-8895

OBJECTIVE

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

EDUCATION

Master Of Engineering, Majored in Computer Applied Technology, Graduated in 2007
Capital Normal University, Beijing, China.

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

COMPUTER SKILLS

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

EXPERIENCE

Maya TD January 2015
PLE Department, **Base FX**

- Created the Maya C++ plugin development process, including the development, test and the plugin deployment.
- In order to support different Maya versions and different platforms, I created the automation build process and automation test process which saves a lot of time for building, testing and plugin deployment.
- Developed a tool which can make blendshape with partial points of a mesh.
- Improved a tool which can use make blendshape with dual-quaternion parameter in Maya.
- Developed a tool for film *Star Wars Episode VII* project.
- Maintained Maya Alembic export plugin.
- Developed several SOuP nodes.

Software Engineer September 2013
R&D Department, **ShangHai CudaTec Technology Development Limited Company**

- Designed, implemented and tested a product-quality Maya plug-in. 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 proprietary with the software copyright registration ID 0183406)
- Developed a product-quality Maya to 3ds format translator for *Redboard* Ltd. It was praised for its outstanding performance.
- 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.
- Developed a simple solver for cloth simulation.

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 demonstrating the gravity sensor 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. This project had been moved to https://github.com/floitsch/gpexport.

- Simple Cloth Simulation (http://blog.csdn.net/yaoyansi/archive/2007/09/05/1774002.aspx)
  Role: Creator
  Implemented the Mass-Spring module for cloth simulation. Created an algorithm for computing a general polyhedron's volume. This algorithm is discussed in the article ‘Exact Buoyancy for Polyhedra.’ (Catto, Erin. *Game Programming Gems 6.* 175-187)

- OpenCollada(http://code.google.com/p/opencollada/)
  Role: Developer
  Simplified the 3ds export process with *lib3ds* library and fixed some bugs. This project had been moved to
  https://github.com/KhronosGroup/OpenCOLLADA/tree/master/dae23ds_lib3ds.

- GPUSPHsim (http://code.google.com/p/gpusphsim/)
  Role: Developer
  Implemented the fluid surface construction using Meta-ball algorithm. This project had been moved to https://github.com/oysteinkrog/gpusphsim.