Yao Yansi

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OBJECTIVE

A position in CG Industry with special interests in CG 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, Multiple output image formats with OIIO, OpenVDB.
- 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.
- Created and maintained the code 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 Maya exporter for custom format.
- 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 the 3D virtual world based on *RealXtend with the integration of Kinect(server*

and client), 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 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 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**
- Part of a team for software automation test.

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 notebook computer.

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

Refactored an exporter based on ColladaMaya.

- GPExporter(http://code.google.com/p/gpexport/)
  Role: Developer
  Some bug fixes and 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
  Optimized the 3ds export with lib3ds, and some bug fixes.

- GPUSphsim (http://code.google.com/p/gpusphsim/).
  Role: Developer
  Implemented the fluid surface construction using Meta-ball algorithm.