KATRIN SCHMID

info@lo-motion.de   *EU citizen, Australian Permanent Resident, H1B USA*

I am an experienced software engineer developing applications in computer graphics, asset and render management. I have worked with large and legacy code bases as well as finding ad hoc and long term solutions to our users problems.
In the past decade I have mostly worked internationally on mission-critical software for major animated and visual effects heavy films like Valerian, War for the planet of the Apes, Independence Day 2, X-Men: Apocalypse, Deadpool, Harry Potter 7, Captain America, Thor, Ice Age 4 and Rio 2.

EMPLOYMENT

Weta Digital, New Zealand   since 2016
Senior Software Engineer (Shots Rnd)
•Developer for the lighting and rendering pipeline, in charge of the crowd render system
•Fully parametric plant and tree procedural for editing and rendering detailed trees and large scale vegetation in new render software
•Designed and implemented departments software testing automation and CI strategies

Digital Domain Vancouver, Canada   2015 - 2016
Senior Software Engineer
•Modernize, extend and speed optimize deferred rendering, crowd and environment system for very large scene rendering to allow consistent results across multiple production sites
•Distributed rendering setup for Vray and Mantra renderers
•Involved in introducing test driven development workflow and code standards

Dreamworks Animation Glendale, USA   2014 - 2015
Senior Software Engineer
•New custom Look development, Surfacing and Modeling pipeline for Oriental Dreamworks
•Full Mari (texture paint) to Katana bridge to allow fast Arnold rendering with asset system integration and UDIM support through all stages of the pipeline

Blue Sky Studios - 20th Century Fox Greenwich, USA   2011 - 2014
Software Engineer
•Adapted and extended open source Alembic geometry file format for the studio's needs
•Improved lighting and render pipeline to enable efficient parallel production of 3 feature films
•Data base centric dependency tracking system for 18 millions+ files per film reducing time for data caching, rendering and streamlining hand-offs. Coordinated data integration with departments.
•Mentored new developers and trainees

Fuel VFX (now part of Animal Logic), **Sydney, Australia**   2010 - 2011
Senior Effects Pipeline Engineer
•Lead the transition of Windows based tools pipeline to Linux
•Optimized render farm management and software to unify administration, ease of usage and reduction of render times, designed pipeline for new 3D visual effects software package
•Custom OpenEXR image tools development

Rising Sun Pictures Adelaide, Australia   2010
Software Engineer
•Designed plug-ins and extended functionality of in-house geometry cache format for data exchange between departments, commercial software packages and cloud render farm
•Significantly optimized speed of in-house OpenGL viewer for the Maya viewport

Dr. D Studios Sydney, Australia   2008 - 2009
Software Engineer
•Developed general and motion capture data tool set, plug-ins for geometric constraints
 and pre-visualization shot management system
•Created Preview, Movie player and Editing system integration for streamlined review

Ilion Animation Studios Madrid, Spain   2008
Software Engineer
Developed visual effects tools and file translator plug-ins in C++

Realtime Technology AG, now 3DEXCITE
   (part of Dassault Systèmes), **Munich, Germany**   2005 - 2008
Tool Developer
Workflow automatisation and technical problem solving

Plan-b media AG (now MindMatics AG) **Cologne, Germany**   2004 - 2005
Product Manager, Mobile Video

EDUCATION

University of Newcastle Newcastle, Australia   2012 - 2013
Master degree in Information Technology with Distinction
 Focus on Data Analysis and Statistics, Data Mining,
 Requirement Analysis and Project Management. **GPA**: 7 (out of 7)

University of Sydney, Australia   2011
Graduate Certificate in Information Technology
 Focus on Analysis, Modeling, Algorithms and Complexity, Java

Harvard University, Extension School Boston, USA   2010 - 2011
Postgraduate student in Parallel Computing and Computer Graphics

Bauhaus Universität Weimar, Germany   1999 - 2003
Bachelor in Media Engineering

Fern-Universität Hagen Hagen, Germany   1997 - 2003
Bachelor in Economics, distance education part-time

TECHNICAL SKILLS

•Languages: Python (expert), C++ (proficient), MS and SQL, XML, Yaml, Json, UML
•Graphics Software (APIs and Scripting): Major commercial 3D and 2D packages, scripting
  and APIs (Maya, Katana, Nuke, Mari), OpenGL, Editorial and image player software, several
  Renderman and Ray-tracers renders APIs
•Technologies: STL, IlmBase, Boost, PyQt/PySide, Local and distributed Asset and Project tracking
   database software and systems, common image and geometry formats like Alembic, OpenEXR,
   various Renderfarm and Software configuration systems, SPSS

FREELANCE AND OPEN SOURCE PROJECTS
•Motion control camera import plug-ins for Houdini for Robot VFX
•Freelance Developer for Remote Render Service of Skeej S.r.l.
•Contributor to openPipeline by Kickstand