Robert Taglang

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EDUCATION

Drexel University, Philadelphia, PA   Sep 2012 – Jun 2017
  • **GPA:** 3.45

Master of Science in Computer Engineering
  • **Thesis:** Real-time Video Alignment and Fusion Using Feature Detection on FPGA

Bachelor of Science in Computer Engineering

OPEN SOURCE

COLLADA2GLTF ★ 167 ⑂ 68   Sep 2017 – Present
Lead Maintainer/Contractor
  • The official Khronos Group tool for converting COLLADA 3D assets to the glTF format
  • Built from the ground up with modern and scalable C++ design principles
  • Fully automated cross-platform builds, testing, and releases powered by Travis CI and Appveyor

AFFILIATIONS

Khronos Group, Individual Contributor Member   Jul 2018 – Present

INTERESTS

Modern C++	Modular build systems	JavaScript
glTF - the efficient format for 3D assets		Clean and scalable Node.js backends
FPGA computing	GPU acceleration	Responsive UX with Vue.js

PROFESSIONAL EXPERIENCE

Private Machines Inc., Brooklyn, NY   Jun 2017 – Present
Software Engineer
  • Lead a small team on grant funded work for automated reduction of vendor UEFI firmware binaries, capable of reducing a firmware payload by up to 70%
  • Head development of embedded UEFI applications providing secure, remotely verifiable cloud deployments
  • Ensure a smooth hardware experience with driver contributions to the upstream Linux kernel and iPXE bootloader

Analytical Graphics Inc., Exton, PA   Mar 2016 – Jun 2017
Software Developer Co-op (3D/Web)
  • Principally develop data structure optimization stages for a JavaScript glTF asset processing pipeline
  • Make contributions to the open-source Cesium WebGL virtual globe engine for visualizing geospatial data
  • Draft specifications for the 3D Tiles open standard for streaming massive 3D datasets, currently undergoing the Open Geospatial Consortium (OGC) Community Standard process

Susquehanna International Group, Bala Cynwyd, PA   Sep 2014 – Mar 2015
Software Engineering Co-op
  • Develop and maintain C# and .NET applications that handle high-volume data where low latency is critical
  • Engineer an ASP.NET REST backend to improve the accessibility of retrieving historical pricing data
  • Build a full-stack code review system using Silverlight for sharing, reviewing, and approving local Perforce changes before they hit production

Bentley Systems, Exton/Philadelphia, PA   Sep 2013 – Mar 2014
Software Development Co-op
  • Simulate real-time 3D object collisions in-engine for infrastructure CAD modeling
  • Implement cross-platform API for mobile device sensors across iOS, Android, and Windows Phone
  • Integrate physics and sensor data to create an interactive AR/VR model viewing experience

Drexel University Applied Informatics Group, Philadelphia, PA   Dec 2012 – Aug 2013
Research Engineer   Apr 2014 – Sep 2014
  • Work with the research team to build decentralized applications for mesh networks
    • XOP - Robust mesh network overlay for the XMPP chat protocol
    • SISTO - Distributed torrent and metadata system
  • Spearhead deployment to Java for Android integration and use in embedded environments
  • Assist in preparation of academic papers for conferences