

■ Personal information

Name

Daniel Pohl

Address

Munich, Germany

E-Mail: daniel.pohl@qwrt.de

■ Experience

Since 07/2016

**Computer Vision Engineer**Intel Deutschland GmbH, Munich 

Developing obstacle avoidance for civil drones

- Vision-based using depth cameras
- Research on new algorithms
- Performance optimizations
- Patents

03/2007 – 06/2016



**Research Scientist**

Intel Deutschland GmbH / Intel Corporation

Innovating in computer graphics, especially

- virtual reality
- real-time ray tracing for games
- in-home streaming
- cloud gaming

Research project management and people management.

05/2011 – 06/2016: Intel Saarbrücken 01/2008 – 04/2011: Santa Clara, California 

Intel Headquarter "Silicon Valley"

03/2007 – 12/2007: Erlangen **Freelancing journalist**Gamestar (Publisher IDG), Munich 

Writing articles about games and technology

Since 03/2005



■ Education

10/2000 – 09/2006

Master's degree Computer Science

University Erlangen-Nürnberg

Main topics

- Computer graphics
- Network technologies
- Software engineering

Master's Thesis

- Interactive ray tracing for large, dynamic game scenarios

Degree

- Master's degree ("Diplom-Informatiker")
- Grade (German system): 1.5 (very good)

■ Languages

German

Native

English

Fluent

■ Skills

Graphics

Ray tracing, OpenGL, distributed rendering, Unity

Programming languages

C, C++, C#, HTML and others as required

Others

OS-independent programming with libSDL, network programming, multi-threading, OpenCV, Eigen, LZ4, Visual Studio, GIT, SourceTree, ROS, ...

Development OS

Windows, Linux, Android

■ Patents

2018

17 patents filed / approved for filing in the areas of graphics, virtual reality, automotive, drones and ray tracing (as of November 2018).

2017

19 patents filed in the areas of virtual reality, automotive, drones, graphics, vision, light fields and augmented reality.
Member of the Intel **patent committee**.

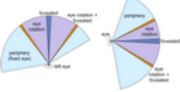
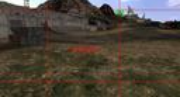
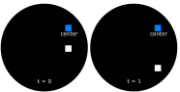



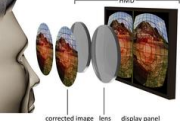


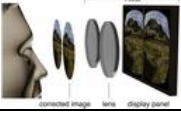
2016

6 patents filed in the areas of virtual reality, graphics, eye tracking, drones and IoT.

2015

1 patent filed
"Distortion Meshes Against Chromatic Aberrations"

Peer-reviewed publications¹

	IEEE VR 2018 (Rank: A)	Concept for Rendering Optimizations for Full Human Field of View HMDs Daniel Pohl, N. Choudhury and M. Achtelik
	FedCSIS 2017 Best Paper Award	The Next Generation of In-home Streaming: Light Fields, 5K, 10 GbE, and Foveated Compression Daniel Pohl, D. Jungmann, B. Taudul, R. Membarth, H. Hariharan and O. Grau
	ACM VRST 2016 (Rank: A)	Concept for Using Eye Tracking in a Head-Mounted Display to Adapt Rendering to the User's Current Visual Field Daniel Pohl, X. Zhang, A. Bulling and O. Grau
	ACM VRST 2016 (Rank: A)	Concept for content-aware, automatic shifting for spherical panoramas Daniel Pohl and O. Grau
	IEEE VR 2016 (Rank: A)	See what I see: concepts to improve the social acceptance of HMDs Daniel Pohl and C. Fernandez de Tejada
	IEEE VR 2016 (Rank: A)	Combining Eye Tracking with Optimizations for Lens Astigmatism in modern wide-angle HMDs Daniel Pohl, X. Zhang and A. Bulling
	IEEE VR 2015 (Rank: A)	Using Astigmatism in Wide Angle HMDs to Improve Rendering Daniel Pohl, T. Bolkart, S. Nickels and O. Grau
	Int. Journal CS & Applications (IJCSA) 2015	Advanced in-home streaming to mobile devices and wearables Daniel Pohl, B. Taudul, R. Membarth, S. Nickels and O. Grau
	FedCSIS 2014 Best Paper Award	High quality, low latency in-home streaming of multimedia applications for mobile devices Daniel Pohl, S. Nickels and O. Grau
	ACM VRST 2013 (Rank: A)	Improved Pre-Warping for Wide Angle, Head Mounted Displays Daniel Pohl, G. Johnson and T. Bolkart

¹ Papers available at www.q4rt.de/Daniel%20Pohl

■ Technical articles

Intel Developer Zone
2012

Tracing Rays Through the Cloud

Intel Developer Zone
2011

Experimental Cloud-based Ray Tracing Using Intel®
MIC Architecture for Highly Parallel Visual Processing

Intel Developer Zone
2009

Quake Wars Gets Ray Traced

PC Perspective 2008

Ray Tracing and Gaming - One Year Later

PC Perspective 2006

Ray Tracing and Gaming

Munich, November 2018

Daniel Pohl