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Profile

I have been fascinated with computers and technology since my youth. During my studies at ETH Zurich I co-founded a start-up company and after earning my degree I was employed at one. In this period, I learned to work under pressure and when to make an effort to succeed. While attending civilian service, I had the opportunity to gain insight into completely different areas. In order to expand my knowledge and to extend my horizon, I spent several years abroad in Prague as a PhD student. By now, I have worked in multiple industries and adopted a broad selection of technologies and programming languages. Furthermore, I regularly worked on pioneering solutions and in research. I am able to relate to a wide range of people and I integrate quickly into new teams. My personal interests are focused on computer graphics and its application in the software and entertainment industry.

Professional Skills

- Creative problem solving, exploration of alternatives and new opportunities
- Team-based pursuit and accomplishment of goals
- Acquiring and maintaining customer relations
- Excellent communication and presentation skills
- Attention to detail and efficient implementation

IT Skills

C, C#, C++, Cg, CUDA, DirectX, GLSL, HLSL, Java, Objective-C, OpenGL, Python, Qt, WebGL, WPF

Adobe	Acrobat, Dreamweaver, FrameMaker, Illustrator, Photoshop
Assembler	AMD and NVidia GPUs, Intel architectures, SPARC architectures
Databases	Microsoft SQL Server, MySQL, OMS
Languages	CSS, Haskell, HTML, JavaScript, Oberon, Pascal, PHP, Prolog, SQL, VHDL
Libraries	Boost, Canoo ULC, CGAL, Helix Toolkit, ImageMagick, libVLC, mitsuba, NVidia MDL, NVidia PhysX, OpenCV, Swing, THREE.js, wxWidgets
Microsoft	Active Directory, MFC, Office, RMS, Visual Studio, Windows SDK, XNA
Networks	Cryptography, hijacking, layers, protocols, sniffing, spoofing, Wireshark
OS	AmigaOS, Atari TOS, Linux, macOS, UNIX, Windows platforms
Simulation/CG	Allegorithmic Designer, 3ds Max, Blender, cadwork, Maple, Mathematica, MATLAB, Maya, VTK
Version Control	CVS, Git, Subversion
Web/CMS	Apache, Joomla, Redaxo

Education

05/2015 – 06/2016	Charles University Prague – CUNI Prague <i>PhD student at the Department of Software and Computer Science Education</i> <i>Research in the area of Material Representations</i> <i>Publication: Virtual Ellipsometry on Layered Micro-Facet Surfaces - OSA Optic Express 2017</i>
03/2010 – 09/2011	Czech Technical University in Prague – CTU Prague <i>PhD student at the Department of Computer Graphics and Interaction</i> <i>Research in the area of Global Illumination</i> <i>Publication: Holographic Approach for an Eye Simulation - IADIS MC 2010</i> <i>Teaching assistant for the classes Computational Geometry and Digital Photography</i>
10/1999 – 03/2008	Swiss Federal Institute of Technology in Zurich – ETH Zurich MSc in Computer Science <i>Major: Visual Computing</i> <i>Minor: Information Security</i>
08/1995 – 12/1998	Grammar school, Liestal, Switzerland <i>Scientific focus (Typus C)</i>

Work Experience

- 05/2018 – 01/2020 **Software-Engineer** at Agathon AG, Bellach, Switzerland
Development of a 3D visualization for the HMI of all grinding machines in order to illustrate the current grinding process
Advancement of the complete software stack for the newly designed Laser NEO, this includes the low-level control of the individual hardware components and ranges up to the HMI of the complete laser machine
- 06/2017 – 01/2018 **Software-Engineer** at Inside Solutions AG, Liestal, Switzerland
Work performed for the Inside Reality project:
Development of converter tool to export 3D models and materials from Autodesk Maya to the One Inside 3D Engine
Development of bake manager tool to pre-process global illumination data in Maya for the One Inside 3D Engine
Development of material shaders for the One Inside 3D Engine
Coordination between the software-engineers and the modelling team
- 05/2015 – 06/2016 **Researcher** at the Faculty of Mathematics and Physics, CUNI Prague, Czech Republic
Development and testing of new material representations in computer graphics with focus on light polarization
- 06/2014 – 12/2014 **Head of Software Engineering** at Zuwalla GmbH, Altenrhein, Switzerland
Payload and sensor integration
Configuration of UAV ground control stations
Real-time video-streaming with telemetry data from a racing car (RCN, VLN)
- 01/2013 – 04/2014 **Software-Engineer** at Swiss UAV AG, Niederdorf, Switzerland
Payload and sensor integration
Development of simulations, tests, and libraries
Correspondence with suppliers and customers
- 09/2012 – 12/2012 **Graduate Trainee** at HP Banking Service Center, Liebefeld, Switzerland
Project tracking and controlling
Redesign and optimization of project controlling
- 01/2011 – 08/2011 **Researcher** at Faculty of Electrical Engineering, CTU Prague, Czech Republic
Industrial project with Skoda (VRUT – Virtual Reality Universal Toolkit)
- 04/2008 – 09/2008 **Software-Engineer** at Dybuster AG, Zurich, Switzerland
Involved in the development of Dybuster Coach
Maintaining existing Dybuster products
Customer support
- 04/2004 – 06/2006 **Co-founder** of Plirosoft AG, Zurich, Switzerland
Position as Software-Engineer
Responsible for the creation of white papers
- 01/2005 – 03/2005 **Internship as Software-Engineer** at IXOS AG, Basel, Switzerland
Development of a GUI prototype and successful binding to existing CMS
- 04/2001 – 10/2003 **Software-Engineer** for the medical project AMIS at the University of Zurich, Switzerland
Development of GUIs used to collect and analyse data from myocardial patients
Cornerstone for the founding of Plirosoft AG
- 04/1999 – 06/1999 **Case handler** at UBS AG, Basel, Switzerland
Verification of bank transactions and training of Microsoft Excel
- 05/1996 – 02/1998 **Employee** at engineering office Alois Novosad, Oberdorf, Switzerland
Drawing of construction plans using cadwork and manual creation of wooden models
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Civilian Service

- 09/2009 – 02/2010 Wohnheim Laubiberg, Liestal, Switzerland
10/2008 – 04/2009 Oekozentrum Langenbruck, Langenbruck, Switzerland
11/2004 – 12/2004 Alterszentrum Brugg, Brugg, Switzerland

Languages

German, Czech	Native speaker
English	Professional speaking and writing skills, APIEL
French, Slovak	Advanced speaking and writing skills

Interests

Carnival in Basel	Staff member at "Zündhölzli/Brandloch"
Computers	ACM and IEEE member
Soccer	I play once a week as a supporter of "FC Oberdorf"
Sports	Cycling, diving, skiing
Travelling	Cities and dive locations

References

Dr. Christian Dorfner – former CEO at Zuwalla GmbH
Independent Management Consulting Professional at Do Dynamics GmbH
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Lars Jürgen Zander – former Head of BD, Sales & Marketing at Swiss UAV AG
Head of Deckfinder Aerial Positioning Systems
Airbus Defence and Space GmbH
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1-month industrial secondment during PhD programme at CUNI Prague:
Cyrille Damez – former CTO at Allegorithmic
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