

Curriculum Vitae

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Independent
Software Consultant
and Game Developer

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Professional Profile

Being blessed with an early interest in computers, I got involved in the software industry during my high-school years in the Eighties; working with PC magazines as a writer and software editor I got connected to a few computer game companies here, there and abroad and turned my hobby into a career while studying Computer Science and Physics in Aarhus.

My experience doing programming, graphics, sound and music for a multitude of games on the early home computers provided me good training for the more competitive world of video console games; I started working for a couple of California-based companies and co-authored and developed games that were successfully published for the Sega Genesis system.

After creating a 3D terrain rendering engine for a PC-based game project I returned from the States to join Interactive Vision, a Danish game developer, as Head of Development. We published the helicopter game "Search and Rescue", instigating a successful sequel of flight simulator titles. My main projects for this company became the construction of an in-house modularized and reusable game framework (3D graphics engine, 3D sound engine, physics simulation, network play, device drivers and tools) and the development of the futuristic 3D shooter "B-Hunter".

The years in the competitive and dynamic computer game industry - when the battle was fought on having the best proprietary middleware such as physics simulators and hand-optimized graphic pipelines - have trained my skills at paying attention to the quality of details - and to the details of quality. And even if my early career (and the fact that I started building a family at the time) was prolonging my studies, I earned some good experience points envisioning, building and successfully shipping large and robust systems and doing technical lead and mentoring for younger team members.

Graduating from the University of Aarhus in 1999, I started working for Mjølner Informatics, an IT consultancy company touching down on various industries including telecom, defense and the electronics industry. Working at Mjølner for 8 years has broadened my scope and taught me solid, senior level skills that complement my studies and my experience from the creative game industry; Due to the nature of work at Mjølner at the time (in-sourcing technically demanding projects from various industries) I have been involved with numerous industrial customers and projects, giving me valuable insight in architectures for embedded platforms, for telecom and network communication and for enterprise solutions, in quality assurance for mission critical systems, test methodologies and software process improvement.

After 8 years at Mjølner I sought new horizons and accepted a position as Software Engineer with focus on 3D software at Lego. I have been contributing to Lego's published digital brick building software, but my main involvement has been with the internal construction and transformation pipeline for Lego's digital 3D assets, supporting existing workflows and new business initiatives and tying 3D software solutions together, cross-organizational-wise, for internal and external customers.

In 2008 I heeded a long-growing urge to stand on my own feet and I launched, as sole proprietor, my independent software consultancy and game development business called Brainphant. Since then I have successfully been running this business with several short and long term involvements with various customers while also having the opportunity to engage in interesting and technically challenging projects on my own. I designed and developed a proprietary 3D platform for iPhone OS and Windows, and in early 2010 Brainphant published its first entirely home-grown, one-man iPhone project, the well-received game "Vertigo Rogue".
As an independent consultant, I've continued the work with improvements on the tool chain and 3D asset pipeline at Lego, I've helped Danish ebay successfully develop and launch the first version of the 'Den Blaa Avis' customer-to-customer iPhone app (immediately becoming the #1 downloaded app in Denmark), and I've helped prototype and develop an augmented reality iPhone app bringing a medieval castle in Jutland back to life.

Starting in 2011 and through the following 6+ years I did consulting work for Bromium Inc., a Silicon Valley company with offices in Cupertino (US), and Cambridge (UK), producing cutting-edge security software using next generation virtualization technologies (acquired by HP Inc. in 2019). The work on this highly technical and complex security product (which hooks into the Windows stack at virtually any level) has given me both deep and broad insights into OS architecture and implementation spanning e.g. boot-level kernel drivers, file system filters, hypervisors, services, inter-process communication, installation technology and advanced upgrade architecture - while constantly balancing implementation issues with UI and UX considerations and customer requirements.

Also, working in this distributed environment honed my ability and discipline for focusing when working remotely and gave me a headstart on the remote working culture kicked off by the pandemic. I thrive in a setup where I can interact and collaborate with colleagues part of the time, and dedicate my concentration to complex development tasks the remaining part of the time.

From 2017 to 2021 I've been consulting in an agile environment for a major Danish company, developing 3D modelling and documentation tools for internal use and interfacing with elaborate (and continuously restructured) production database systems. Specifically, I've developed complex and innovative algorithms for analyzing and modifying 3D assets for this system.
From 2018 to 2025 I've been engaged in full-stack development in the financial sector, implementing business logic for containerized deployment on modern platforms and adapting to emerging, statutory banking standards, specifically focusing on authentication and authorization in a PSD2 context. Furthermore, I have been part of a small team responsible for developing, transforming and running the internet-facing API gateway for 8-10 large Danish banks. This work has involved building pipelines and a good developer experience for a multitude of in-house developer teams, working with modern container platforms and eco-systems and integrating features and requirements from different business domains.
Also, in 2020 I was consulting in the healthcare domain, working on the Danish National Patient Register in a Java EE architecure, primarily implementing load test systems and database transformation scripts.
Since spring 2025 I have been freelancing on the migration and modernization of a huge mainframe system calculating work schedules and payrolls for more than a hundred thousand employees, primarily in the public sector.

I published the mobile games www.runnyduck.com (2019) and www.teddyswar.com (2025), both for IOS and Android, a couple of hobby projects and the type of one-man endeavour that I fancy in my spare time to train my skills at end-to-end project management and development, to learn new technologies, to stay sharp and to balance my work life between the colorful, creative arts and the more academic, technical challenges of computer science, both of which I enjoy and depend on in order to thrive.

As such, my experience and interests have always had a broad scope and are exploratory and expanding by nature rather than limited to a narrow focus on a few technologies. I'm not scared of new areas and I'm particularly passionate about mobile development, 3D graphics at large, building sound and robust architecture, meeting customer needs above and beyond, and areas of high technical challenge in general.

I was born in January 1970 and live near Silkeborg in central Jutland. I am open minded with a positive attitude and a "just let's do it!" mindset, never considering a challenge insurmountable. I think of myself as a polite, relaxed and creative person who enjoys cooking, running, reading & writing, playing music, doing nerdy computer projects as a hobby and spending humorous time with other people.

Professional Summary

I consider myself very innovative with a flair for developing an overall understanding of problems while retaining focus. I have worked with computer graphics programming for almost three decades and have experience in technical leading and coordination of projects, including object-oriented design, test methodologies and architectural experience and skills. I have a passion for technical aspects such as optimization and algorithmic challenges; experience with and talent for analyzing complex and performance critical scenarios and delivering effective and well-balanced solutions.

I have an extensive knowledge of a broad range of hardware platforms, experience with software platforms ranging from embedded and mobile operating systems to enterprise frameworks and I am specialized in 3D graphics, the math behind it and the aggressive, low-level performance optimizations bringing it to life.

Running my own business, working with software publishing and negotiating terms and requirements with external customers for many years has provided me an important understanding of the coupling between the technical aspects of project management & implementation and the realm and context of hard-life business requirements.

Naturally, I've been producing as well as presenting documentation in English and Danish during the last couple of decades and always enjoyed it as a complement to the more technical parts of the work.

Previous Employment

2008-now	Owner of Brainphant; Software Consultancy and Independent Game Development
2007-2008	Senior 3D Software Engineer at Lego (4000+ employees); 3D Graphics and Tools, 3D Asset Management
1999-2007	Senior Software Engineer at Mjølner Informatics A/S (~75 employees); Software Development
1996-1999	Head of Development at InterActive Vision A/S (10-50 employees); Computer Games and Flight Simulation
1994-1996	Self-employed, full-time Independent Software Consultant and Game Developer; IT-consultancy/development: Game Development and Frameworks, Graphic Engines, Flight Simulators
1988-1992 and 1999-2002	Freelance Independent Software Consultancy, primarily for Interactivion A/S; Software development, primarily Computer Games
1985-1988	Editor, writer at various Danish computer magazines; Writing reviews and technical articles, programming

Education, Courses, Conferences

1999	M. Sc. in Computer Science (minor in Physics) from the University of Aarhus
2000	One week training seminar in Project Management at Delta (www.delta.dk)
2003	Software Test Seminar at CSI, Sønderborg
2005	Project Leader Seminar at Mjølner
2006	Software Architect Seminar at Mjølner
2006	J2EE Studies (group seminars, exercises) at Mjølner
2007	Personal Development course, Lego
2008	Certified trained Adam 4.x Developer (.NET platform, www.adam.be; Training: Ashton Court)
1994	Consumer Electronics Show, Las Vegas
1997	Develop '97, game developer conference, London
2008	Game Developer's Conference (full program), San Francisco

Competencies and Experience

Roles	**Level**	**Years**	**Last**
Project Manager	High	3+	2010
Technical Lead	High	9+	2006
Developer	High	21+	2026
Architect	Medium	4+	2016
Programming Languages	**Level**	**Years**	**Last**
C, C++	High	20+	2021
C# / .Net / WPF/xaml	Medium	4+	2025
Assembly (10-12 different platforms)	High	11	2006
Java, Groovy, Python	High	7+	2026
Javascript, HTML, CSS	Medium	5	2025
Objective C	High	1	2011
Various scripting and configuration (batch,vbs,sh/bash,xml,yaml)	Medium	6	2025
Development Tools and Environments	**Level**	**Years**	**Last**
MS Visual Studio - C++ / VB / C# / .Net	High	15	2025
Unix suite: gcc, gdb, gcov/gprof, valgrind, lint, emacs	High	7	2010
Git, ClearCase, CVS, SVN, Perforce, Gitlab/Bitbucket	High	20	2026
Compaq/Intel compilers & debuggers (Alpha/Itanium)	High	5	2006
IntelliJ / Idea, ant, maven, Gradle	Medium	6	2026
Docker, Vagrant, Helm	Medium	3	2024
Kubernetes/OpenShift/Azure DevOps, Jenkins, Apigee, Kong	Medium	6	2026
Supplementary Competencies	**Level**	**Years**	**Last**
Unity3D	High	5	2024
Qt UI (MVC, Item Models, qss-styling etc.)	Medium	2	2018
IOS and Android	High	6	2025
DirectX, OpenGL, Win32	High	11	2017
Linux / Unix / Solaris / Tru64 (debian, sling, ubuntu, ...)	High	6	2007
Java EE, Java 8/11/17	High	7	2026
MFC, COM	Medium	8	2017
JBoss, Oracle/SQL	Medium	2	2020
RTOS in general (embedded)	Medium	2	2004
WinCE .Net	Medium	1	2004

Specific Mobile Competencies and Experience
Developing applications (both 3D games and 2D consumer apps) using XCode on Mac for iPhone (Apple's IDE for Mac and IOS development)
Developing applications using Unity3D / Mono on Windows, Mac and PC for IOS and Android
Managing Apple as well as Google developer certificates, application identifiers and provisioning profiles, including Ad-Hoc provisioning (distribution and deployment on external tester's devices)
Rapid testing using iPhone/iPad simulator on Mac
Building 'Universal Apps' (one binary that runs on iPhone, iPod Touch and iPad)
Submitting, publishing and upgrading free and paid apps on Apple App Store and Google Play Store
Programming in Objective-C and C++ (and integration between both languages) on iPhone
Programming in C# and Javascript for iPhone and Android platforms (Unity3D)
Programming in Javascript/HTML5/css and wrapping in ReactNative for cross-platform 3D game
Optimization using profiling and other instrumentation with special focus on memory footprint and battery usage
Experience with framework structure and IOS SDK / knowledge base (sample applications and best-practice) on iPhone in general
High level of experience with frameworks for openGL (3D graphics), openAL (sound), accelerometer, GPS, touch input etc.
Writing socket communication between iPhone simulator, physical iPhones and PCs (implementing advanced development and test frameworks)
Implementing semi-automated tool chain for converting audio and 2D image assets to iPhone native formats

Languages	Written	Oral
Danish	Native	Native
English	High	High
German	Medium	Medium
French	Low	Low

Major Projects

The following table provides a comprehensive overview of technologies I have used in various projects and is primarily intended as a reference for someone looking for a specific competence.

2025 -	**Customer:**	Large Danish company developing systems for recording and calculating work schedules and payrolls for hundreds of thousands of employees.
	Project:	Migrating legacy mainframe to Java backend, extensive regression testing
	Roles:	Software Engineer
	Technologies:	Azure DevOps / Kubernetes, Java, Qarkus, Python, k6, drools

2020 -2025	**Customer:**	Financial/banking sector
	Project:	.Net + Java backend services, API gateway / continuous deployment pipeline
	Roles:	Software Engineer
	Technologies:	Apigee, Kong, groovy, jenkins, git, C#, Visual Studio, IIS, MS SQL, OpenShift / Kubernetes, Helm, ArgoCD, Quarkus, OpenAPI

2020	**Customer:**	Healthcare sector
	Project:	Backend systems, performance optim. and monitoring, CDA/HL7 standards
	Roles:	Software Engineer
	Technologies:	JavaEE, linux, IntelliJ, git, jenkins, hibernate, SQL

2018 -2020	**Customer:**	Financial/banking sector
	Project:	Backend systems, implementing business logic and conforming to PSD2
	Roles:	Software Engineer
	Technologies:	Java, Docker, Vagrant, OpenShift, OAuth/OIDC, Apigee, Cucumber/Selenium

2017 -2018, 2019, 2021	**Customer:**	Major Danish/global company (15K+ employees)
	Project:	3D software tools supporting internal processes
	Roles:	Software Engineer
	Technologies:	VS/C++, Qt, 3D, OpenGL, git/gitlab, Jira/Confluence, unit test

2016	**Customer:**	Danish development house making VR pre-study for global company
	Project:	Prototype of Virtual Reality training system for off-shore energy systems
	Roles:	Software Engineer
	Technologies:	C#, Unity3D, Oculus Rift

2011 -2017	**Customer:**	Bromium, Inc. (200 employees)
	Project:	vSentry, Advanced Endpoint Security using virtualization
	Roles:	Software Engineer
	Technologies:	C++, C#, javascript, python, Windows Installer + WiX, git, hypervisor/VM, Jira

2011	**Customer:**	ebay / Mjølner
	Project:	'Den Blaa Avis' iPhone App
	Roles:	Software Engineer
	Technologies:	IOS, UI, Objective-C, integration with backend, profiling and optimization, deployment, google analytics, JSON

2010 - 2011	**Customer:**	InnoPro Aps
	Project:	'Kalø Castle Ruins' IOS App
	Roles:	Software Engineer / Consultant

	Technologies:	IOS, UI, Visualization / Augmented Reality, Unity3D, Mono C#/javascript, GPS, terrain height data and textures, 3D mesh construction and cleanup

2009 and 2010	**Customer:**	Alexandra Institute A/S
	Project:	@aGlance (www.aglance.dk) - research project: 3D terrain visualization, GPS, video analysis and projection, collaboration
	Roles:	Software Engineer
	Technologies:	C++/Win32, OpenGL, PalCom, cvs, Java

2009 - 2010	**Customer:**	Brainphant
	Project:	Development of 3D game (including construction of proprietary platform from scratch) for iPhone and iPad
	Roles:	Managing and development incl. design, programming, texture artwork, 3D models, sound effects and music
	Technologies:	IOS, OpenGL, Objective-C, C++, XCode, gdb, Blender, Audacity

2007 - 2010	**Customer:**	LEGO
	Project:	Development of platform and tools for 3D asset management and production pipeline for internal use and external partners
	Roles:	Developer, architect, consultant, integration
	Technologies:	C++, C#, ASP.NET, Python, Maya/MEL, Perforce, opengl

2006 - 2007	**Customer:**	International telecom organization
	Project:	Optimizations and new functionality on proprietary IP stack (Linux, portable, C); code generation and reflection
	Roles:	Developer, designer
	Technologies:	C (iso99), gcc/gdb/gcov/gprof, CVS, valgrind, lint, TCP/IP

2005 - 2006	**Customer:**	International telecom organization + International telecom/network corporation
	Project:	Development of test framework and runtime optimization of mission critical Virtual Machine on 64-bit telecom switch + Server applications and adapters for charging systems in network systems.
	Roles:	Project manager, architect and developer
	Technologies:	C++, ClearCase, Assembly (Alpha, Itanium) + J2EE / EJB, JBoss, Oracle

2004	**Customer:**	Danish telecom industries
	Project:	Hardware simulator and test framework (incl. high level test language and parser) for telecom platform. Driver development and integration in WinCE .Net.
	Roles:	Team lead, designer and developer
	Technologies:	C/C++, embedded

2003	**Customer:**	Large Danish industrial automation / electronics corporation
	Project:	Embedded software development, including test framework analysis and design, tools development (J2SE) and time and space critical implementations on several embedded platforms (C and C++, various custom RTOS).
	Roles:	Team lead, designer and developer
	Technologies:	C, C++, J2SE and various custom RTOS

2002	**Customer:**	Defense industry
	Project:	Defense project running on a mixture of J2EE beans and J2SE clients (Swing on Unix) communicating on JMS.
	Roles:	Team lead, designer and programmer
	Technologies:	J2EE, J2SE, JMS

1999 - 2002	**Customer:**	International telecom organization

	Project:	Large project involving JIT compiler design, implementation and optimization on 64-bit platforms, including experience with capacity critical and mission critical systems in the telecom industry.
	Roles:	Designer and developer
	Technologies:	C++, ClearCase, Assembly (Sparc, Alpha)

2000 - 2002	**Customer:**	InterActive Vision A/S
	Project:	Consulting on smaller projects, including development of fast 3D engine for computer games on Palm Pilot and GameBoy Advance, 3D visualization of physics simulations using RenderWare platform (PC, PS2, Xbox).
	Roles:	Consultant
	Technologies:	C/C++, Assembly (Motorola, ARM, Intel), DirectX

1996 - 1999	**Customer:**	InterActive Vision A/S
	Project:	Coordination, programming and development of computer game projects, flight simulators and industrial visualization tools. Design of large, modularized development system for Windows and 3D graphics and physics engines with special attention to performance and real-time techniques.
	Roles:	Technical lead
	Technologies:	C/C++, BRender, Win32, DirectX

1993 - 1996	**Customer:**	Asciiware; Technopop; Sega
	Project:	Computer games for PC and Sega consoles for U.S. companies (games published in U.S. and Europe).
	Roles:	Development and programming
	Technologies:	Assembly (Motorola, Intel), C/C++, Embedded

1988 - 1992	**Customer:**	InterActivision A/S
	Project:	Software development and programming for various platforms for Danish company, mainly computer games (published in Germany).
	Roles:	Development and programming
	Technologies:	Assembly (Motorola, Z80), C, Raster Graphics