Derek SEVERIN

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PROFILE

Software engineer with 20+ years' experience in various positions and industries. I have developed over the years the ability to easily adapt to new environments and technologies, being always eager to learn and face new challenges. Able to work autonomously or as part of a team, and experienced in collaborating with several teams and departments simultaneously.

Always looking for projects on which I can develop and share my technical and management skills.

AREAS OF EXPERTISE

- Software engineering
- CAD / VFX tools design
- Game prototyping
- Embedded development

SKILLS

- Programming languages: Python, C, C++, C#, JS, Java
- Experienced in several technologies and frameworks
- CGI / CAD tools wide experience and knowledge
- Team and project management
- Quick learning and adaptability
- Autonomous, with team spirit
- Versatility

EDUCATION & QUALIFICATION

2014 : IKM Assessment
Embedded C : 86%

2012 : IKM Assessment
C++ : 97%

2003 : Master in Computer Science
ULB (BE)
Thesis subject:
"*Digital Images Indexing on 3D Models*"

1997 : European Baccalaureate
European School (BE)

LANGUAGES

English:	Fluent
French:	Native
Spanish:	Intermediate
Dutch:	Basic

WORK EXPERIENCE

Pipeline TD | UFX Studios - Brussels (BE)   *Aug 2023 – Nov 2024*

- Collaborated within a two-person TD team to share responsibilities and manage tasks efficiently.
- Recruited to introduce fresh ideas and innovative solutions, leveraging my diverse experience to enhance the existing pipeline.
- Developed and implemented output and precomp nodes in Nuke to streamline rendering and automate publishing on the server, as well as integration with Shotgrid/Flow.
- Integrated pipeline processes into Hiero, and created tools to automate key aspects of the IO workflows.
- Improved existing tools in Maya, Nuke, and Flow to meet evolving production requirements.
- Provided ongoing support and maintenance, assisting artists and producers with daily operations.

Pipeline TD | BadClay Studio / AiOi - HCMC (VN)   *Jul 2019 – Jun 2023*

- Sole developer at the studio, responsible for the management of the entire pipeline.
- Integration and continuous adaptation of the open-source VFX pipeline OpenPype to manage the studio workflows, focusing primarily on ftrack, Maya and Nuke integrations.
- In collaboration with the LookDev Supervisor, designed and implemented a shader building tool in Python for Maya to automatically build complex shader graphs based on input templates and rules, drastically accelerating the LookDev team work.
- Developed pipeline tools in Python+Qt to accelerate and automate assets management in Maya (import/export and QC of shaders, groom and animation), helping the studio to successfully deliver hundreds of shots for various big movies and series projects.
- Extended the open-source VFX pipeline framework Mangrove, to automate Maya scene build from scene descriptions or existing outdated scenes. Primarily used on the massive "Trang Ti" project (600+ VFX shots).
- Research and experimentation on open-source pipeline tools and frameworks (OpenPype, Gaffer, Prism, Kabaret, etc.) and production management tools (ftrack, Kitsu, TACTIC, Aquarium, etc.) to determine the best fit for the studio's requirements.
- Developed several utility scripts (Python, shell, MEL, Hython, MAXScript) to export, convert, clean or archive asset and shot data between DCCs or for delivery management.

Consultant & Project Manager | AKKA Technologies - Brussels (BE)   *Mar 2012 – Jan 2018*
Functional Analyst (Consultant) | AGC - Louvain-la-Neuve (BE)   *Aug 2017 – Jan 2018*

- Established new EDI relationships with suppliers while maintaining existing ones with clients, acting as the point of contact between the business partners and technical teams.
- Handled the gathering, analysis and communication of business requirements and functional specifications, and the project's development follow-up to ensure business goals were met.
- Identified and troubleshooted EDI production issues as they arose, coordinating with the appropriate service or partner to determine source of problems and possible resolutions.

Technical Lead (Consultant) | Toyota Motor Europe - Brussels (BE)   *Dec 2016 – Sep 2017*

- Technical Lead for the "Drawing Comparison Tool" (DCT) project consisting in a complete software solution to greatly streamline the drawing comparison process previously done manually by engineers.
- Leader of the development team (4 developers), responsible for the technical aspects required to successfully realise the DCT software solution according to the client's requirements: An efficient, robust and scalable system combining low level image analysis algorithms (C/C++ and OpenCV) with high level web and distributed technologies (JavaScript, Clojure, Redis, MongoDB).
- Developed most of the front-end 2D viewer features in JavaScript (using React, Redux and Pixi.js).

Project Leader | AKKA Technologies - Brussels (BE)   *Jul 2016 - Sep 2016*

- Project Leader for the development of a proof-of-concept tool in C++ and Qt to automatically compare two revisions of a technical drawing and highlight their differences using the OpenCV library. Managed the team of 4 developers.
- Wrote the feasibility study document of the "Drawing Comparison Tool", which combined with the proof-of-concept prototype, resulted in Toyota Motor Europe choosing our company to develop the full scale final system.

Software Engineer (Consultant) | Infrabel s.a. - Brussels (BE)   *Nov 2014 - Jun 2016*

- Developer on the IFAST project, a Java embedded application for Windows tablet to digitise and partly automate the process of railway shelter field-testing, greatly increasing the workers productivity.
- Developed the module related to the digital test sheets management, combining JavaFX for the main UI interactions, with HTML, CSS and JavaScript for the sheets generation and handling. The module provides an intuitive usage while also allowing to export sheets in PDF mirroring exactly the original printed documents (based on Excel documents).

Project Leader | AKKA Technologies - Brussels (BE)   *Jul 2014 - Oct 2014*

- Project Leader for the development of a prototype in Java/Swing to automatically detect and extract elements in 2D plans using image recognition techniques (with the OpenCV library), applied to the railway sector.
- Successful demonstration of the prototype enabling the company to be chosen for a larger scale project at Infrabel.

Embedded Software Engineer (Consultant) | Atos Worldline - Brussels (BE) + Luxembourg (LU)   *Apr 2012 – Jan 2013*

- Developed embedded software in C on payment terminals (XENTA & YOMANI) extending their functionalities and providing a better user experience (gas+electricity top-up management and survey+advertisement tools).
- Managed the coordination between the different teams and departments in Brussels and Luxembourg, establishing and monitoring the Validation Master Plan, to present the optimal final products to the management and clients.

CAD Software Engineer (Intern & Consultant) | Sonaca s.a. - Gosselies (BE)   *Jul 2007 - Oct 2010 & Feb 2013 - Jun 2014*

- Developed and maintained internal CATIA V5 modules (C++ plugins and batch applications) and shell scripts assisting and validating designers work.
- Conceived data conversion and archiving tools in C# and VB .NET interacting with the different PLM systems automating data exchanges with clients including Airbus, Bombardier and Dassault Systèmes.
- Proposition and implementation of an automated commands and tools development framework for CATIA V5 built on top of the CAA-RADE API greatly accelerating internal developments.
- Level 2 and 3 support on data exchange procedures and CATIA V5 tools on Windows and UNIX.

Research Engineer | Multitel a.s.b.l. - Mons (BE)   *Mar 2004 – Jun 2007*

- European FP6 projects WCAM and WIDENS: Transformed a C++ open-source video player on PDA (Windows CE) into a hybrid media streaming and video surveillance application, by integrating the ffmpeg framework, partners' developed video codecs and an alarm notification system. The full solution was presented at the Annecy 2005 animation festival.
- LapTrainer for Medsys: Conceived a 3D real-time training application for the LapStick controller, mimicking the LapMan laparoscopic surgery robot. Application written in C++ using the OGRE engine, test scenes created with Blender.
- Quadrox set-top box: Ported internal C/C++ video surveillance framework to Windows, to embed it in a DirectShow filter.
- Modeled 3D scenes in Blender for training and testing of internally developed image analysis algorithms.

3D Modeller and Tools Developer | VR Context s.a. - Brussels (BE)   *Oct 2003 – Jan 2004*

- Created 3D animated human characters with 3ds Max and Photoshop.
- Developed a 3ds Max plugin in MAXScript to export the models for the company's VR security simulation software.