

Curriculum Vitae – Gerco Ballintijn

Profile

Experienced Technical Lead with a passion for solving real-world problems through meticulous analysis and the development of practical solutions. Possesses a methodical and knowledge-driven approach to software development, supported by a strong educational background as a well-educated postgraduate. Demonstrates expertise in both independent and collaborative environments, leveraging strong teamwork and leadership skills to drive project success. Skilled in talent acquisition, coaching, and supervision, fostering high-performing teams. Seeking opportunities to contribute expertise and drive innovation in a dynamic technical leadership role.

Key Skills and Knowledge

- Developing complex, distributed software systems – including problem and requirements analysis, technical software design and architecture, and programming.
- Various programming languages – including C++, Java, Python, JavaScript.
- Software development tools – including issue trackers (*e.g.*, JIRA), IDEs (*e.g.*, VS Code), source control (*e.g.*, git), build systems (*e.g.*, cmake), unit testing (*e.g.*, unittest-cpp), continuous integration (*e.g.*, Jenkins), and container technology (*e.g.*, Docker and Kubernetes).
- Platforms – including Web, Linux, Windows, macOS, iOS, Android, Cloud (*e.g.*, AWS).
- Development methods – including Kanban, Agile, Scrum, and TDD.
- Security – including authentication, authorization, encryption, digests, and certificates.
- 3D Graphics – including OpenGL, OpenGL ES, and WebGL.
- GUI technology – including Qt, Swing, and Tk.
- Effective communication – including written, presentations, and coaching.
- Professional-level English and native-level Dutch.

Experience (summary)

September 2022 – Present	Senior Software Engineer Thales
November 2019 – March 2022 (2 years 4 months)	Senior Software Engineer Dexels
February 2010 – January 2019 (8 years 11 months)	Technical Lead Software Development ro'omy / LOFT
July 2006 – February 2010 (3 years 6 months)	Senior Software Engineer Tryllian Solutions

Education

Ph.D. in Computer Science Prof. Dr. Andrew S. Tanenbaum
Dissertation: **Locating Objects in a Wide-area System**
Vrije Universiteit Amsterdam

M.Sc. in Computer Science
Thesis: **Pop-up Threads in the Amoeba Operating System**
Vrije Universiteit Amsterdam

Experience (details)

Senior Software Engineer Thales

September 2022 – Present
Huizen, the Netherlands

Maintained and extended the SOTAS multi-media vehicle system, which provides functionalities such as audio, networking, and application hosting services. SOTAS provides, for instance, a sophisticated intercom system and clear speech, through digital audio services and intelligent filtering algorithms.

Skills: (Modern) C++, Python, Rhapsody, Make/CMake, CI/CD (Jenkins), VoIP, Linux, networking and distributed computing.

Senior Software Engineer Dexels

November 2019 – March 2022
Amsterdam, the Netherlands

Maintained and extended the Navajo SaaS platform, which provides mechanisms to easily develop high-throughput web services, supporting both web and mobile clients. Navajo is applied in the Sportlink ERP system, used by sports federations, such as the KNVB, to produce and process sport-related information. Developed, for example, a Kafka-based non-blocking RPC mechanism to buffer messages during peak loads.

Skills: Java, Kafka, Docker, Kubernetes, Prometheus, CI/CD (CircleCI), web services, distributed computing.

Sabbatical

January 2019 – October 2019
Amsterdam, the Netherlands

On sabbatical to focus on my (part-time) study Psychology, at the Open University in the Netherlands; and to explore new career opportunities in software development and services.

Technical Lead Software Development ro^omy / LOFT

February 2010 – January 2019
Amsterdam, the Netherlands

Developed several interior design applications using 3D graphics (both individually and in a group); used to create high-quality still images and interactive scenes of real-world rooms with (virtual) furniture models inside. This combination was used to either promote the sale of the associated property, the sale of the furniture, or both.

Developed 3D rendering technology with a focus on providing interactive performance on weaker platforms, such as Java Applets and iPad apps, dealing with the bandwidth requirements of 3D data, and providing visually pleasing output, for example, using techniques for drop shadows and ambient occlusion. Separate rendering technologies were developed for the Web, mobile, and desktop platforms.

Skills: C++, JavaScript, Java, OpenGL (ES) / WebGL, Qt, REST, HTTP(S), JSON, XML, SQL, Subversion, git, JIRA, macOS, Windows, Linux, technical software architecture and design.

Senior Software Engineer Tryllian Solutions

July 2006 – February 2010
Amsterdam, the Netherlands

Most work was done within specific projects for specific clients, as described below. Additionally:

- Improved the quality of the software engineering practices within the company.
- Wrote descriptions of employee profiles, roles, and responsibilities, for use in HRM planning.
- Wrote information sheets of previous and ongoing projects for use in sales and marketing.

Senior Software Engineer
NS Reizigers

July 2008 – October 2008
Utrecht, the Netherlands

Developed web services that returned the real-time arrival times of trains at stations. These arrival times were computed from an event stream provided by the rail track maintainer (ProRail), which was processed using the Apama complex event processor (CEP).

Designed and programmed Sonic ESB/MQ services that provide the transformation and routing of XML event- and request/response messages for the Apama CEP. These services were implemented using Java and XSLT, and the integration was done using JMS and SOAP.

Skills: Java, XML, Sonic ESB/MQ, IBM WebSphere, Eclipse, Subversion, Windows, technical software design.

Senior Software Engineer
Microbais Automatisering

February 2007 – July 2008
Amsterdam, the Netherlands

Developed (*i.e.*, design and implementation) the communication infrastructure needed to connect the computer systems of pharmacies both to the national health communication hub and other parties, such as general practitioners and insurance companies. The communication was based on HL7v3 messages (XML) on top of a JMS and Web Services transport layer.

Specifically, developed a service that stored and injected information on routing and formatting of messages; developed an event logging infrastructure that extracted management information from the infrastructure and stored it in a central database for querying at a later time; set-up and maintained the release- en deployment system of the communication infrastructure.

Skills: Java, XML, JMS, Sonic ESB/MQ, SOAP, Web Services, Eclipse, Linux, software architecture.

Senior Software Engineer
MSI / Hylø

November 2006 – February 2007
Amersfoort, the Netherlands

Designed and implemented a communication server that, in cooperation with a Google search appliance, retrieved documents from a client organization's website or network share. MSI analyzed these documents to provide the client organizations with the ability to answer end-user questions automatically and intelligently on the basis of these documents. To be able to focus on their core activity (*i.e.*, intelligent answers), MSI chose the indexing tools of the Google search appliance, instead of writing their own web crawler.

Skills: Python, HTML, XML, Eclipse, Subversion, Windows.

IT Consultant
Emotional Brain

August 2006 – November 2006
Almere, the Netherlands

Wrote functional- and technical design documents to productize a prototype implementation of a heterogeneous multi-agent expert system (HeMAS) that would support doctors with prescribing antidepressant drugs. Subsequently, created a development plan and did a risk assessment for the project. Creating the plan and performing the assessment required an in-depth analysis of the existing prototype application.

Skills: Technical analysis, written communication.

Software Engineer
Ingenium Groep

July 2006 – August 2006
Utrecht, the Netherlands

Designed and implemented components for communication logging and registering sales in an e-commerce application that allowed consumers to buy travel arrangements, including extras such as, insurance and car rentals, from different tour operators and suppliers. Also tested and debugged the application in general.

Skills: Java, JavaScript, JSP, Tomcat, MySQL, Eclipse, Subversion, Linux.