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# Understanding LangChain4j

LangChain4j 1.*x*

2nd Edition

Antonio Goncalves

*Foreword by Dmytro Liubarskyi*

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Antonio Goncalves

2025-06-16: 2nd Edition

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The distribution of this fascicle is made through Amazon KDP (*Kindle Direct Publishing*[1]).

Any source code referenced by the author in this text is available to readers at https://github.com/agoncal/agoncal-fascicle-langchain4j/tree/1.0.1. This source code is available for reproduction and distribution as it uses an MIT licence[2].

- www.antoniogoncalves.org
- agoncal.teachable.com
- www.amazon.com/author/agoncal

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- eBook (PDF/EPUB) at https://agoncal.teachable.com/p/ebook-understanding-langchain4j
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Understanding LangChain4j
LangChain4j 1.x
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> To my mum, Rita Navalhas.
>
> To my great-cousin, "Soldado" Navalhas.
>
> To my cousin, Carlos Navalhas.

# Foreword

Dear Reader,

Welcome to this book on LangChain4j!

I'm Dmytro Liubarskyi, the developer behind LangChain4j. My passion for both Java and artificial intelligence led me to create LangChain4j, a library that connects the worlds of Generative AI and Java.

In the rapidly changing field of GenAI (Generative AI), finding comprehensive and up-to-date resources can be challenging. That's why this book stands out. It not only demonstrates the capabilities of LangChain4j but also provides an in-depth exploration of the latest GenAI concepts.

I'm honoured that Antonio has dedicated his time and expertise to this book. He is an exceptional writer, known for his ability to make complex topics easy to understand. In these pages, he makes GenAI concepts clear and practical for Java developers.

Whether you're new to AI development or already experienced, I'm confident you'll find valuable insights in these pages. I'm excited for you to explore how LangChain4j can help you build AI-enhanced applications.

**Dmytro Liubarskyi**
*Creator and Lead Developer of LangChain4j*
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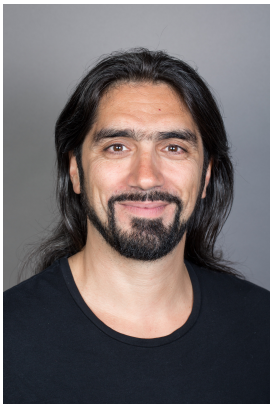
# About the Author



I am a Principal Software Engineer at Microsoft living in Paris. Having been focused on Java development since the late 1990s, my career took me to many different countries and companies where I worked as a consultant. As a former employee of BEA Systems (acquired by Oracle), I developed a very early expertise on distributed systems and then microservices. Today, with my role at Microsoft, I help customers to build and run their intelligent Java applications on Azure AI. AI has become my new tool in the last few years.

I am particularly fond of open source, and I am a member of the OSSGTP[1] (*Open Source Solution Get Together Paris*). I love to create bonds with the community. So, I created the Paris Java User Group[2] in 2008 and co-created Devoxx France[3] in 2012 and Voxxed Microservices in 2018[4].

I wrote my first book on Java EE 5[5], in French, in 2007. I then joined the *Java Community Process* (JCP)[6] to become an Expert Member of various *Java Specification Requests* (JSRs) (Java EE 8, Java EE 7, Java EE 6, CDI 2.0, JPA 2.0, and EJB 3.1) and wrote *Beginning Java EE 6* and *Beginning Java EE 7* with Apress[7]. Still hooked on sharing my knowledge, I decided to then self-publish my later fascicles (on *Jakarta Persistence*, *Jakarta Bean Validation*, *Quarkus*, and *LangChain4j*) as well as online video courses (see Appendix E).

For the last decades, I have given talks at international conferences (JavaOne, Devoxx, GeeCon, and many *Java User Groups*), mainly on Java, distributed systems, microservices, cloud computing and artificial intelligence. I also wrote numerous technical papers and articles for IT websites (DevX) and IT magazines (Java Magazine, Programmez, Linux Magazine). Since 2009, I have been part of the French Java podcast called *Les Cast Codeurs*[8].

In recognition of my expertise and all of my work for the Java community, I was elected **Java Champion**[9].

I am a graduate of the *Conservatoire National des Arts et Métiers*[10] (CNAM) in Paris (with an engineering degree in IT), *Brighton University*[11] (with an MSc in object-oriented design), *Universidad del Pais Vasco*[12] in Spain, and *UFSCar University*[13] in Brazil (MPhil in Distributed Systems). I also taught for more than 10 years at the Conservatoire National des Arts et Métiers where I previously studied.

Follow me on LinkedIn (agoncal), BlueSky (agoncal.bsky.social), X/Twitter (@agoncal) or on my blog (www.antoniogoncalves.org).

[1] OSSGTP https://www.ossgtp.org

[2] Paris JUG https://www.parisjug.org

[3] Devoxx France https://devoxx.fr

[4] Voxxed Microservices https://voxxeddays.com/microservices

[5] Amazon https://www.amazon.com/author/agoncal

[6] JCP https://jcp.org

[7] Amazon https://www.amazon.com/author/agoncal

[8] Les Cast Codeurs https://lescastcodeurs.com