# Literature

Klaus Iglberger

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1. C++ Primers and References
2. Advanced C++ Programming
3. C++ Software Design
4. Refactoring and Testing
5. Performance Optimization
6. Professional Programming

# 1. C++ Primers and References

C++ Primer

- Very well written introduction to C++

- Completely rewritten for C++11

- Proper introduction of C++ concepts and idioms

- ISBN-10: 9780321714114

- ISBN-13: 978-0321714114
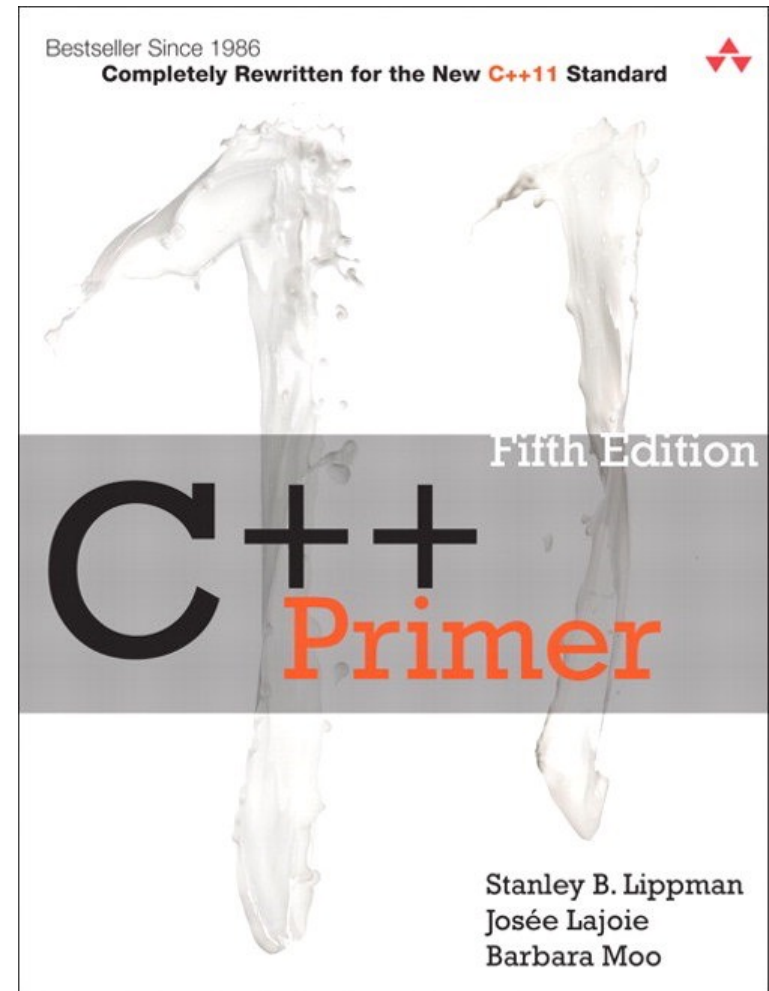
A Tour of C++

- Great overview of C++20
- Excellent opportunity to upgrade your C++ knowledge (only 299 pages)
- From the inventor of C++ himself

- ISBN-10: 0136816487
- ISBN-13: 978-0136816485
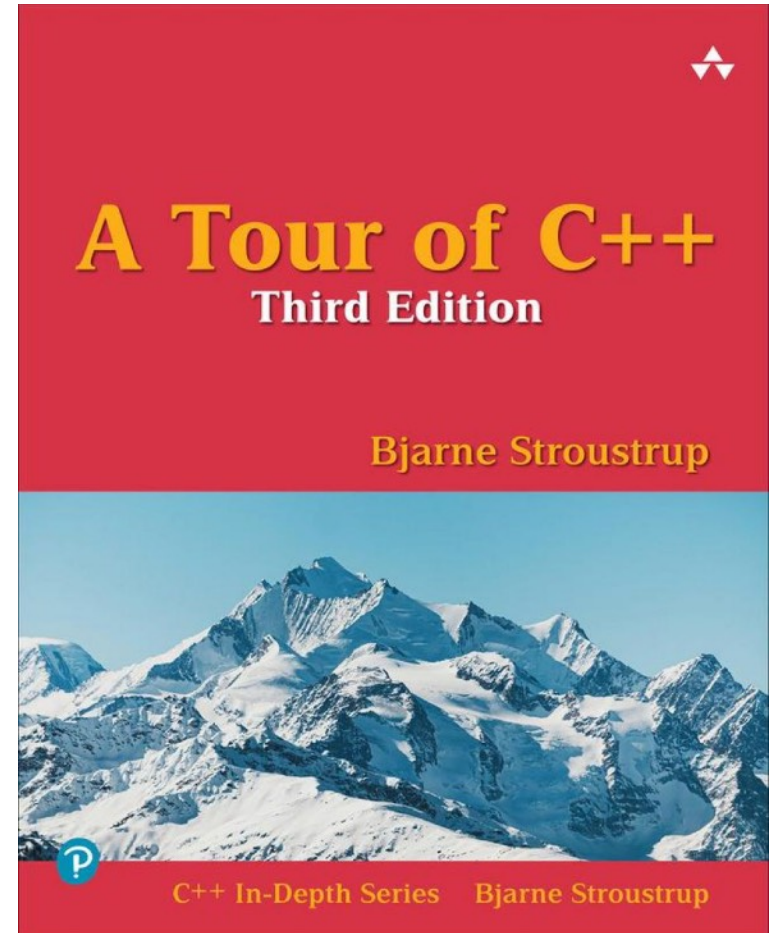
The C++ Programming Language

- C++11 introduction by the inventor of C++ himself
- Contains all details in a terse form
- More suited as a reference for the advanced and professional programmer

- ISBN-10: 0321958322
- ISBN-13: 978-0321958327
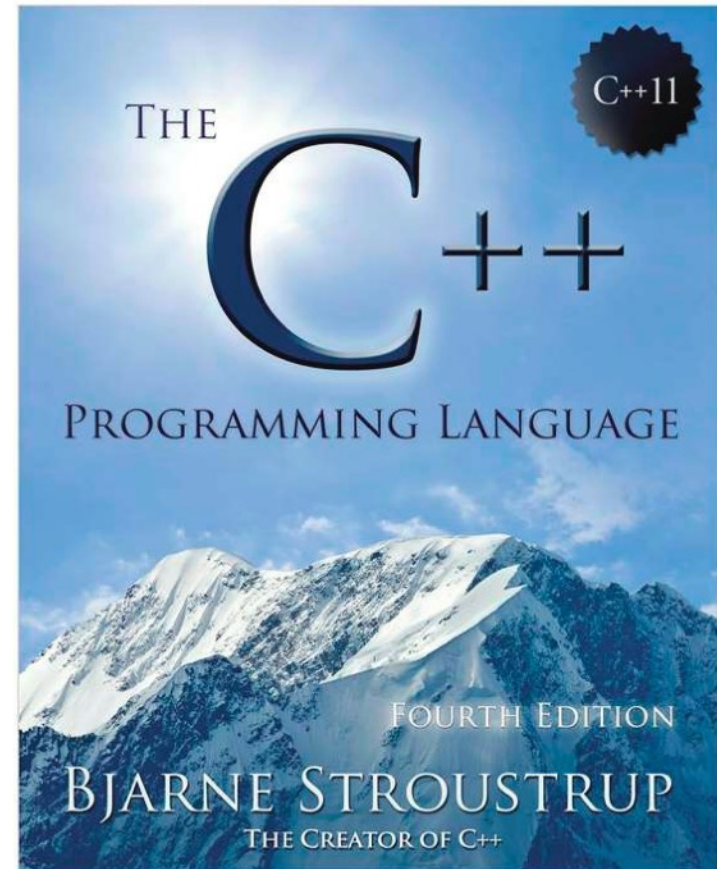
C++20 - The Complete Guide

- A complete overview of C++20, introduced by an expert
- Contains all the features of C++20, including code examples
- Best introduction to C++20 polymorphic memory resources
- Detailed introduction to C++20 ranges

- ISBN-10: 396730020X
- ISBN-13: 978-3967300208

C++ 20
The Complete Guide

Nicolai M. Josuttis
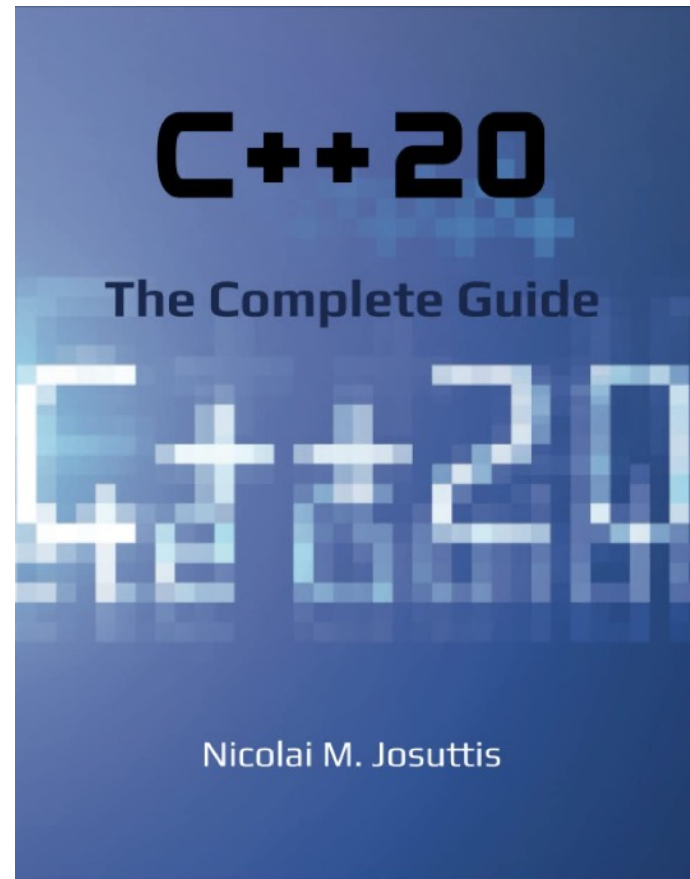
Learn C++ by Example

- An update for C++ programmers, covering C++11 to 23

- Example-based introduction of features

- Motivating and entertaining approach to learn C++
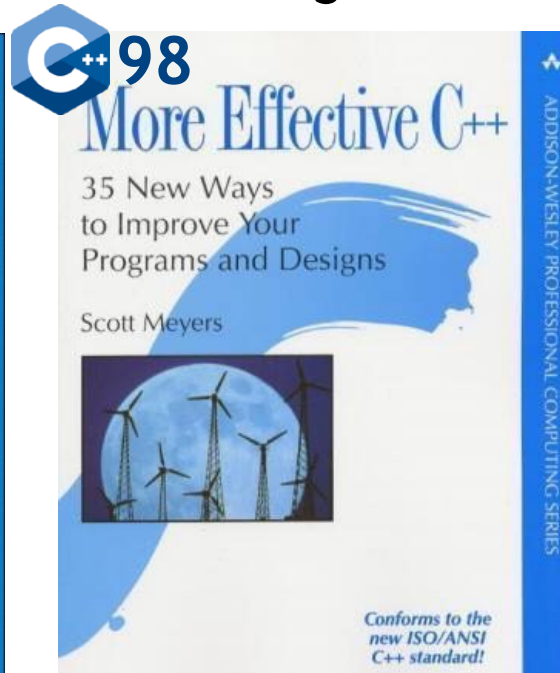
- ISBN-10: 1633438333

- ISBN-13: 978-1633438330
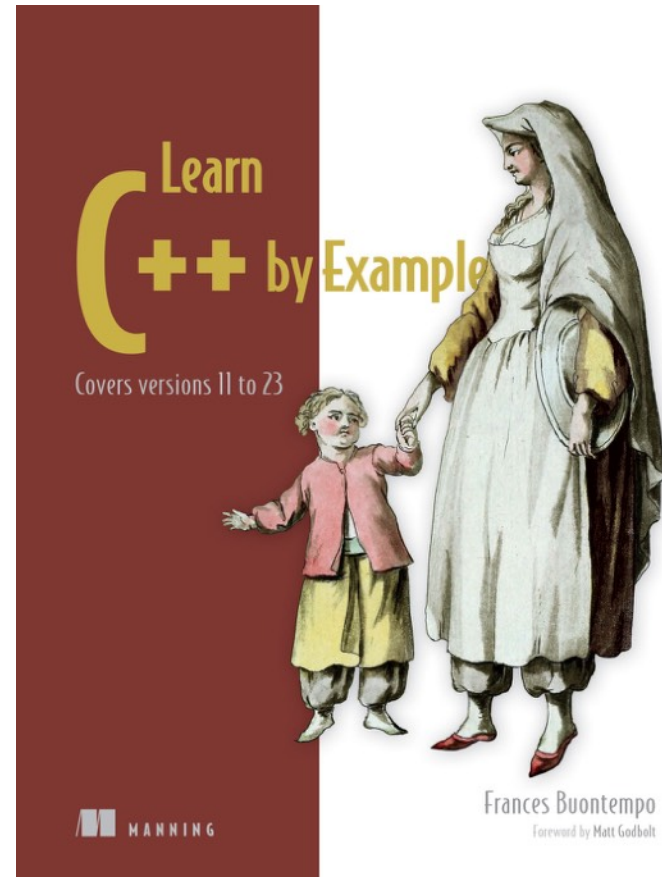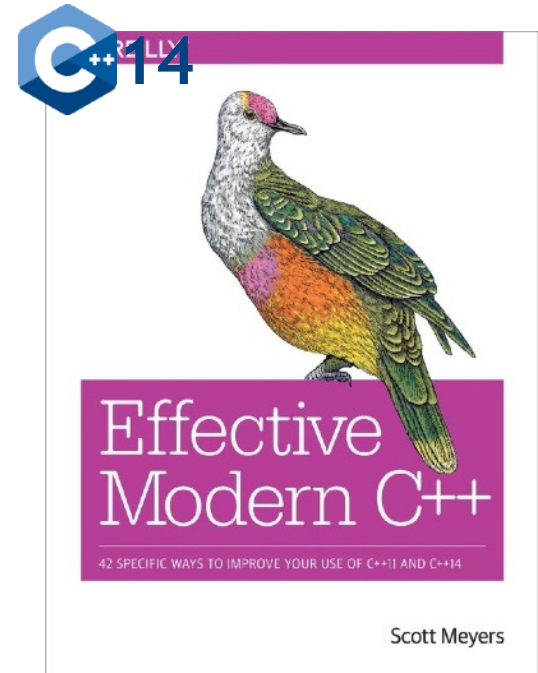
2. Advanced C++ Programming

Effective C++

- *The* classic book on better software design with C++
- Many language details, good explanations and examples
- "Must-read" for every serious C++ programmer
- Basis for a special set of Lint warnings
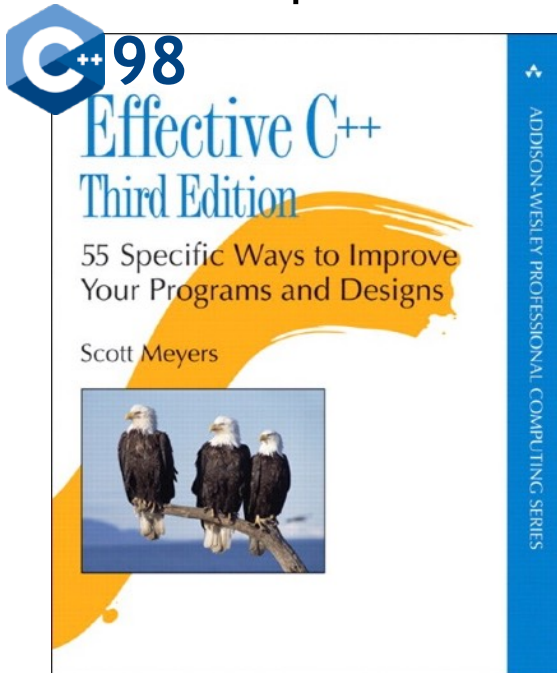
- ISBN-10: 0321334876
- ISBN-13: 978-0321334879

- ISBN-10: 020163371X
- ISBN-13: 978-0201633719

- ISBN-10: 9781491903995
- ISBN-13: 978-1491903995

Effective STL

- 2nd successor of Effective C++
- Introduces proper use of the S(T)L
- Also a "must-read" for every C++ programmer

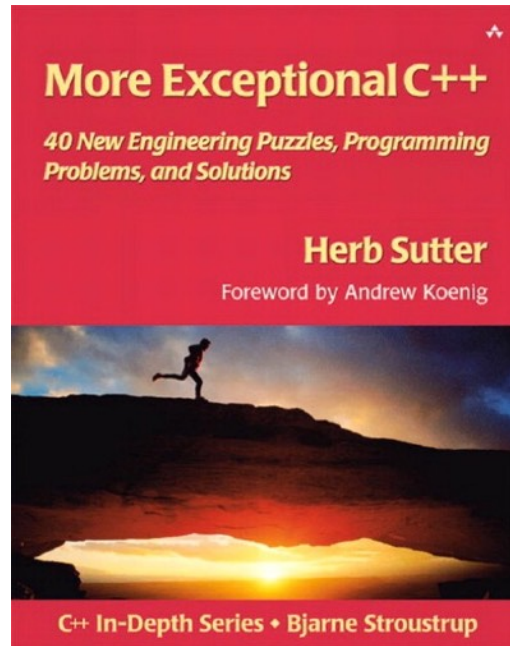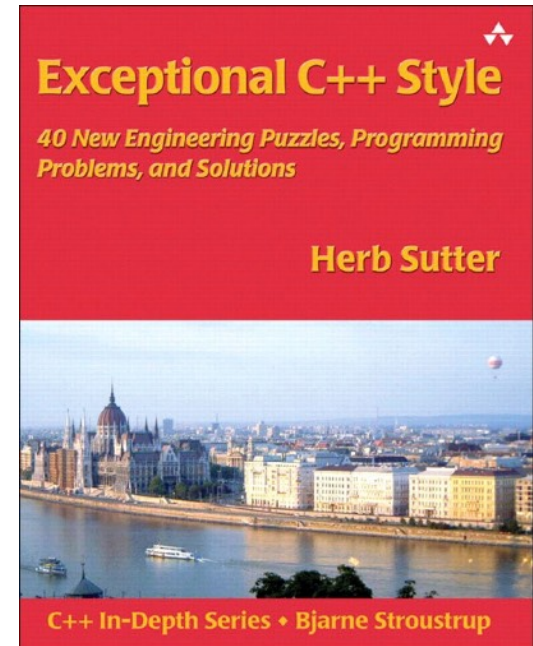- ISBN-10: 0201749629
- ISBN-13: 978-0201749625

Exceptional C++

- Highly informative and entertaining
- Same item-based structure as Effective C++
- "Must-read" for every serious C++ programmer
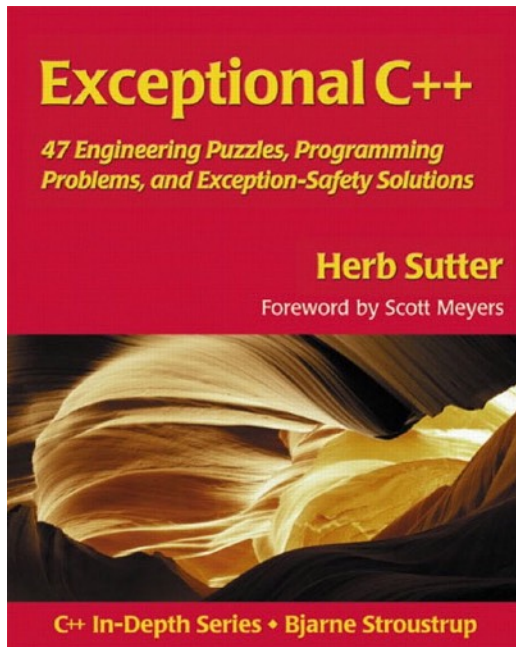
- ISBN-10: 0201615622
- ISBN-13: 978-0201615623

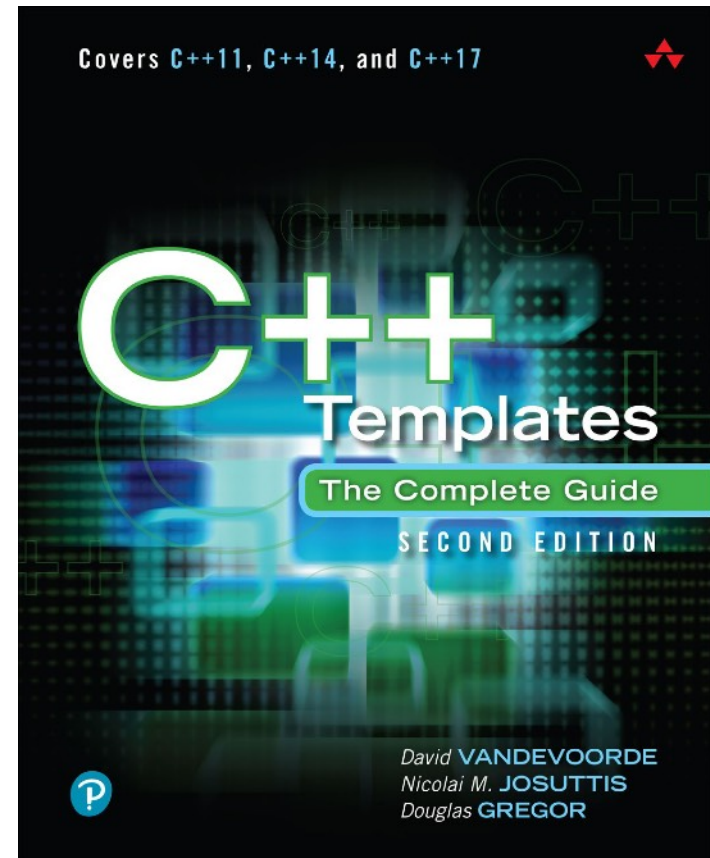- ISBN-10: 020170434X
- ISBN-13: 978-0201704341

- ISBN-10: 0201760428
- ISBN-13: 978-0201760422

C++ Templates – The Complete Guide

- *The* book on C++ templates
- Contains all details about all aspects of template programming
- Highly recommended as reference

- ISBN-10: 0321714121
- ISBN-13: 978-0321714121

Functional Programming in C++

- *The* best book on function programming in C++
- Very good introduction to functional programming concepts
- Very recommended

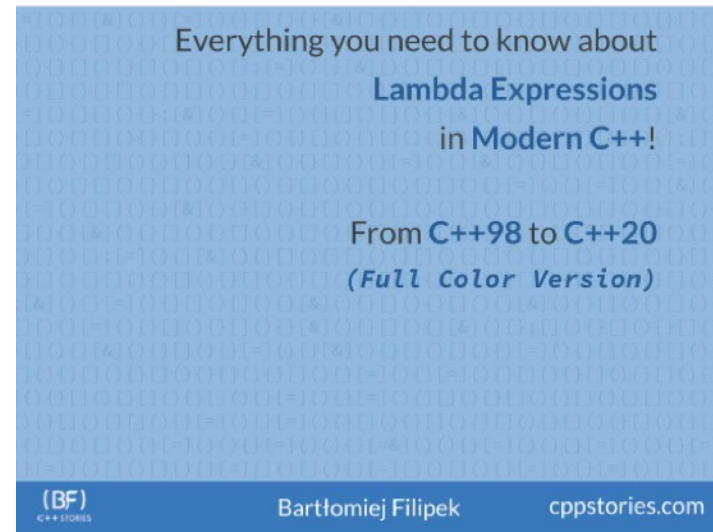- ISBN-10: 1617293814
- ISBN-13: 978-1617293818
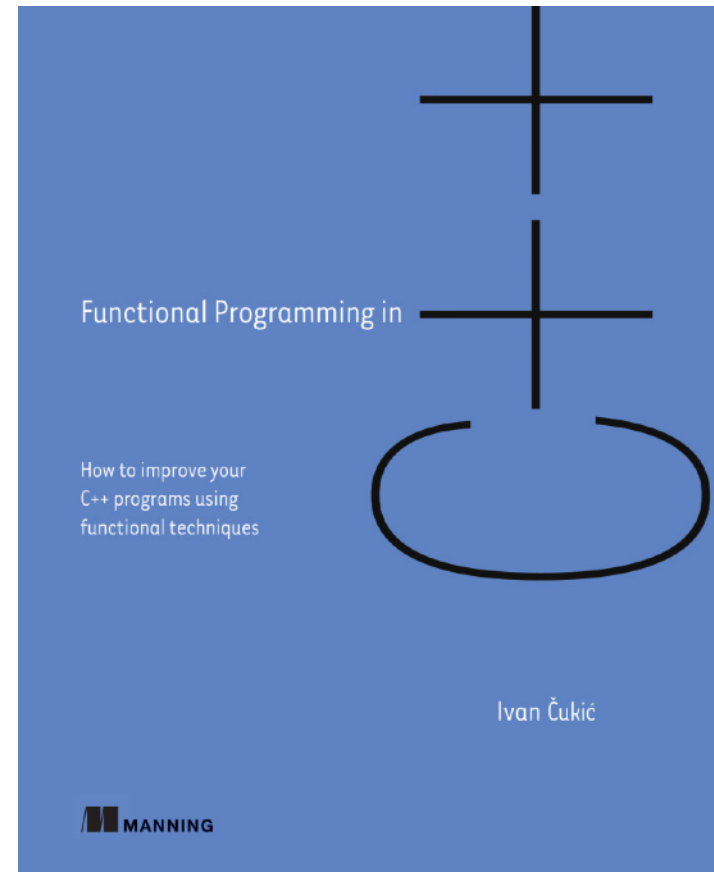
C++ Lambda Story

- Everything about arrays (and related topics)
- Covers both basics and advanced topics

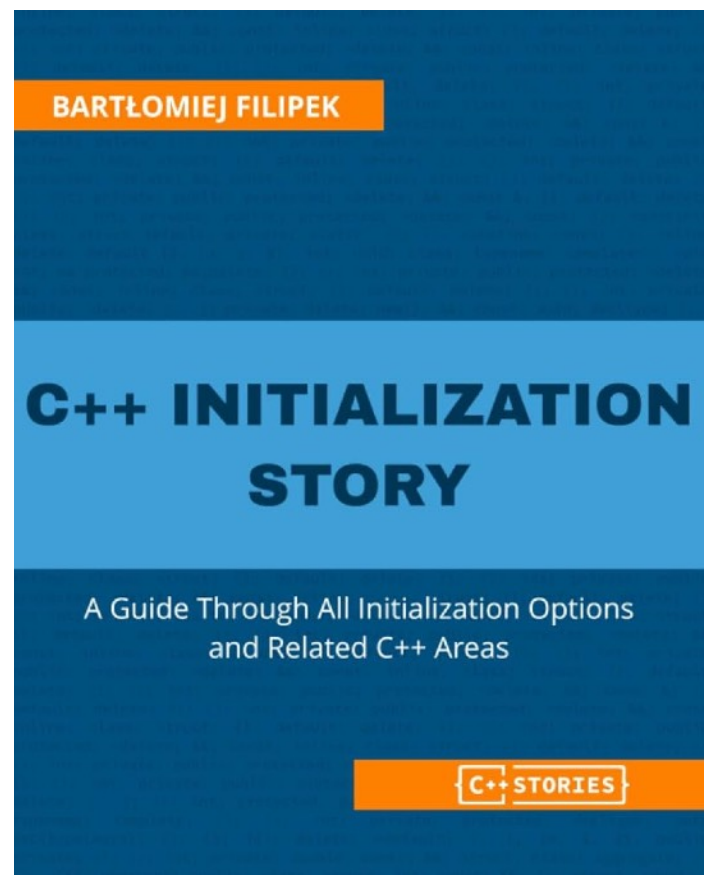- ISBN-13: 979-8590126835

C++ Lambda
Story

Everything you need to know about
Lambda Expressions
in **Modern C++**!

From **C++98** to **C++20**
(Full Color Version)

(BF)
C++ STORIES   Bartłomiej Filipek   cppstories.com
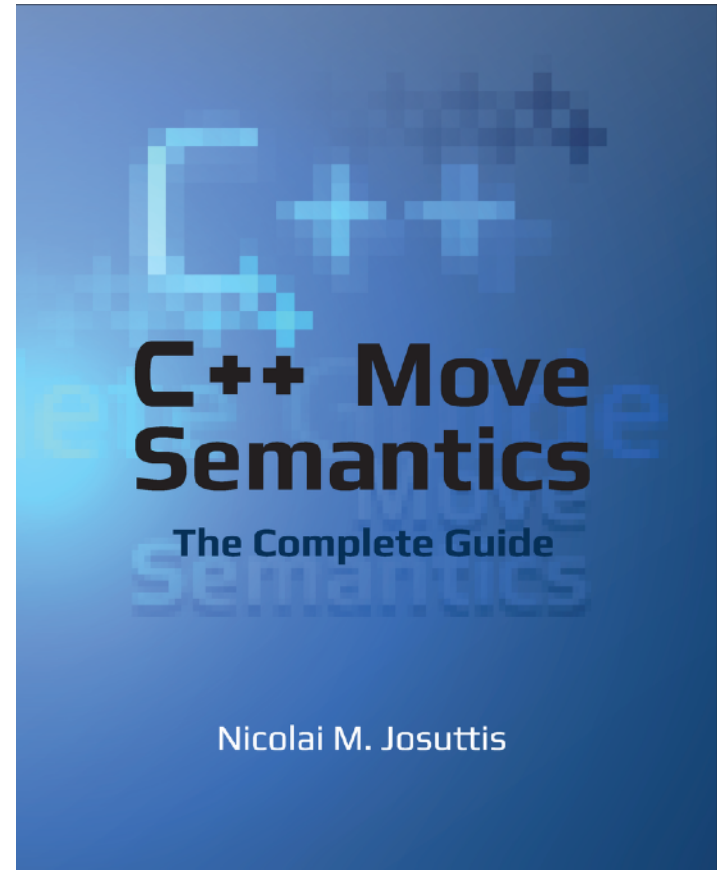
C++ Initialization Story

- Everything about initialization (and related topics)
- Covers both basics and advanced topics
- Good, but simple code examples

- ISBN-13: 979-8371581426
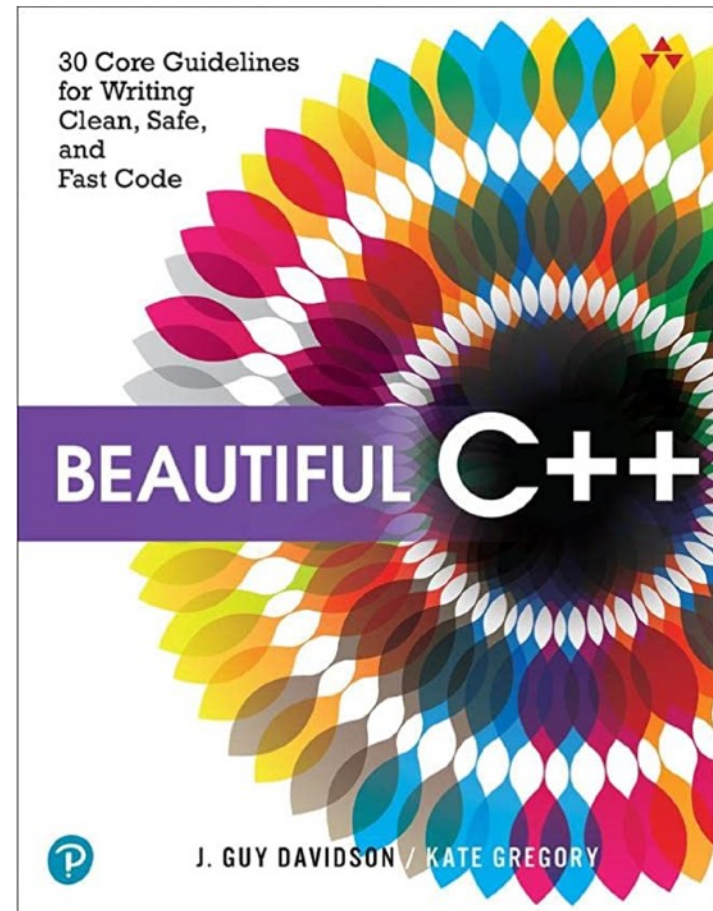
C++ Move Semantics - The Complete Guide

- Everything about C++ move semantics

- From the basics to advanced problems and questions

- ISBN-10: 3967309002
- ISBN-13: 978-3967309003

Beautiful C++

- Good explanation of 30 of the most relevant Core Guidelines
- Examples from real world experience
- Entertaining writing style

- ISBN-10: 0137647840
- ISBN-13: 978-0137647842

3. C++ Software Design

Design Patterns

- The "Gang of Four" (GoF) book
- *The* good old reference on classical design patterns
- Highly recommended

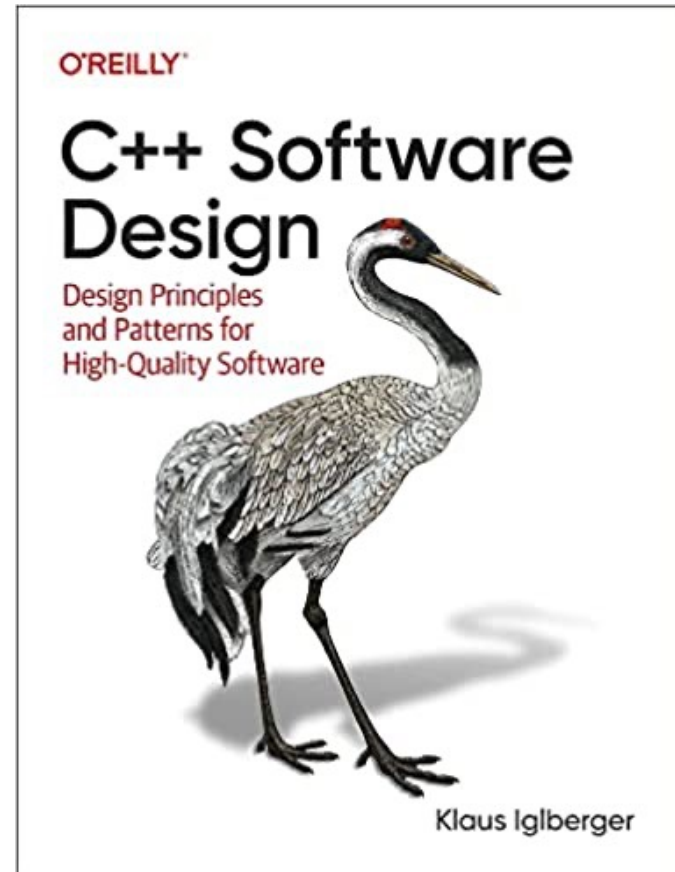- ISBN-10: 0201633612
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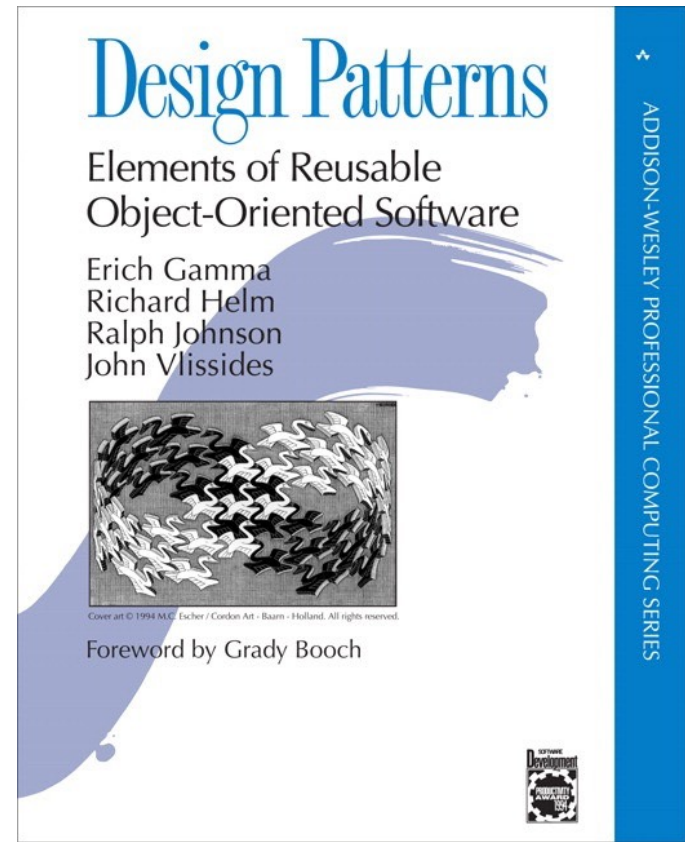
C++ Software Design

- The best book on software design with C++ (completely objectively, really!)
- Introduction to classic and modern C++ design patterns
- Covers implementation details
- Published in September 2022

oreilly.com

Head First Design Patterns (2nd Edition)

- One of the most instructive books on classic design patterns

- Recommended to get an impression on the OO implementation of patterns

- ISBN-10: 149207800X

- ISBN-13: 978-1492078005

O'REILLY®

Second Edition

Head First

Design Patterns

Building Extensible & Maintainable Object-Oriented Software

Eric Freeman & Elisabeth Robson

with Kathy Sierra & Bert Bates

A Brain-Friendly Guide

Head First Software Architecture

- Very good general introduction to software architecture

- Simple, easy to understand, but also entertaining

- ISBN-10: 1098134354

- ISBN-13: 978-1098134358
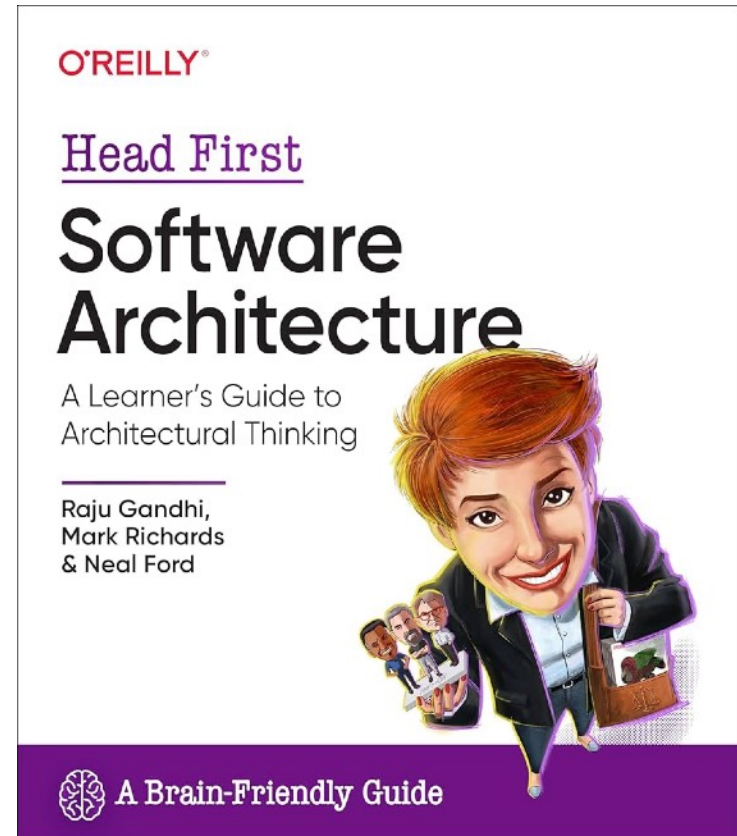
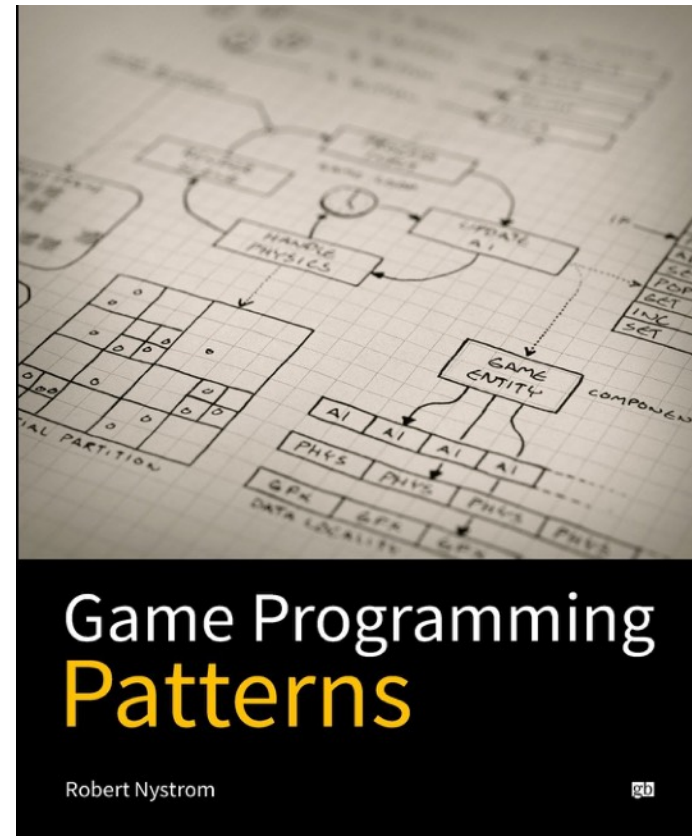# Hands-On Design Patterns with C++

- Technically up-to-date introduction to many C++ design patterns
- A little implementation heavy

- ISBN-10: 1804611557
- ISBN-13: 978-1804611555

Game Programming Patterns

- Focus on code organization and decoupling
- Good selection of patterns
- Suited for all C++ developers, not just game developers

- ISBN-10: 0990582906
- ISBN-13: 978-0990582908
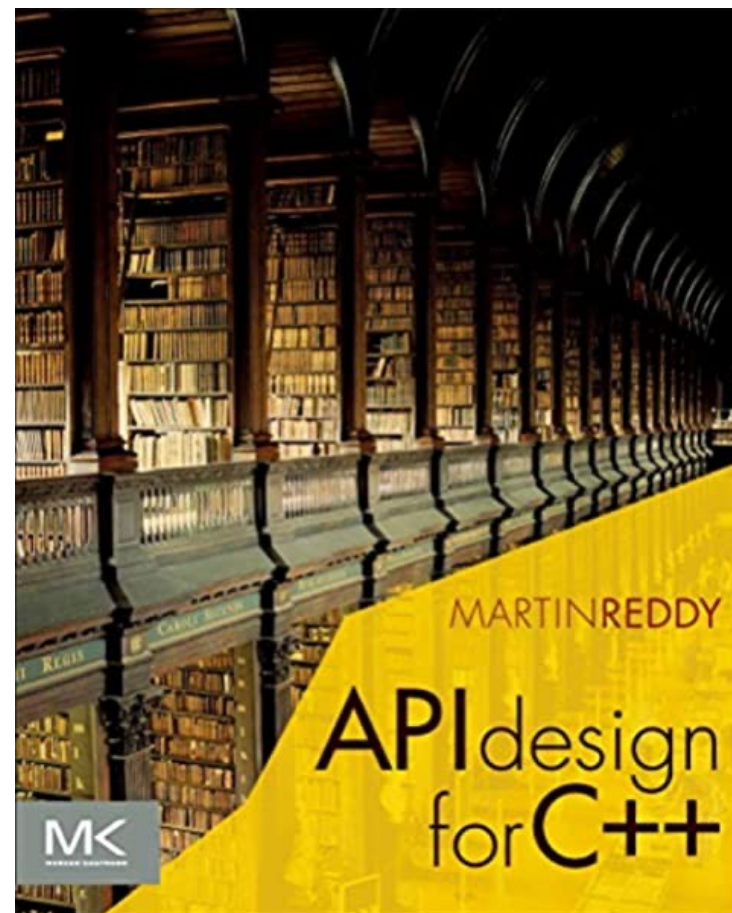
Large-Scale C++ (Volume I)

- Complete overview on software design and architecture
- Lots of important guidelines
- Very valuable for every C++ developer

- ISBN-10: 0201717069
- ISBN-13: 978-0201717068
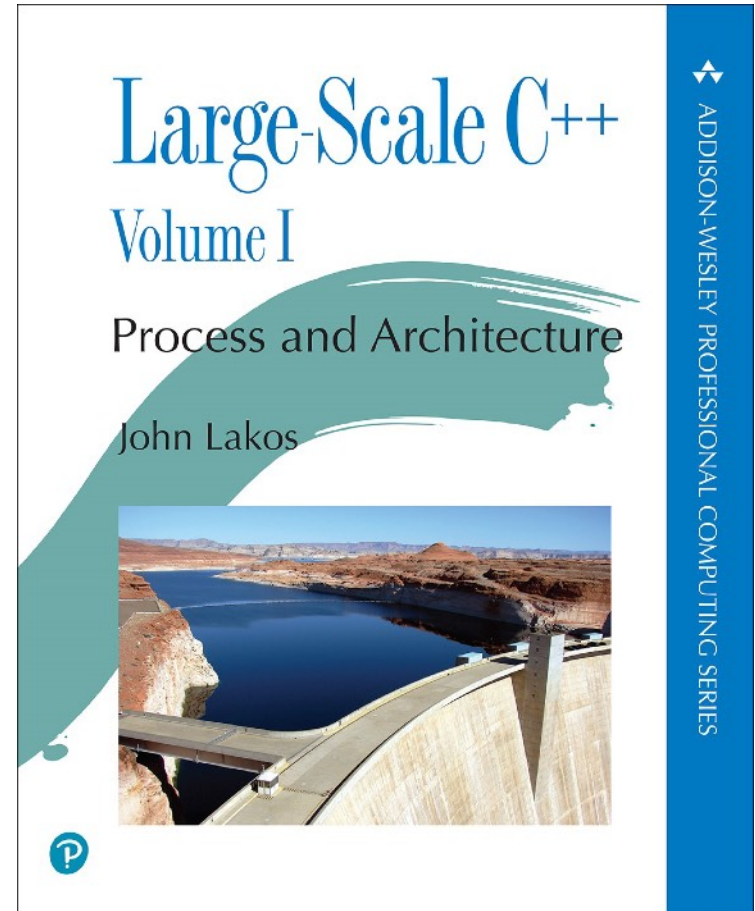
API Design for C++

- Good overview of different aspects of API design
- From implementation details to design patterns

- ISBN-10: 0123850037
- ISBN-13: 978-0123850034

Agile Software Developement

- One of the best book on the principles of agile software development

- Emphasis on design for change

- Very well written chapters on the basic principles of OO software design

- Highly recommended

- ISBN-10: 1292025948
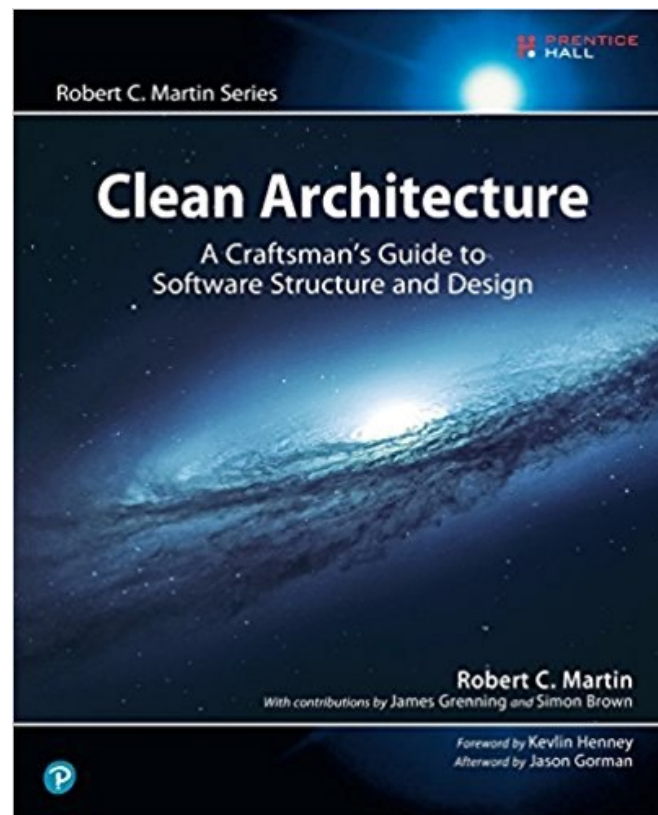
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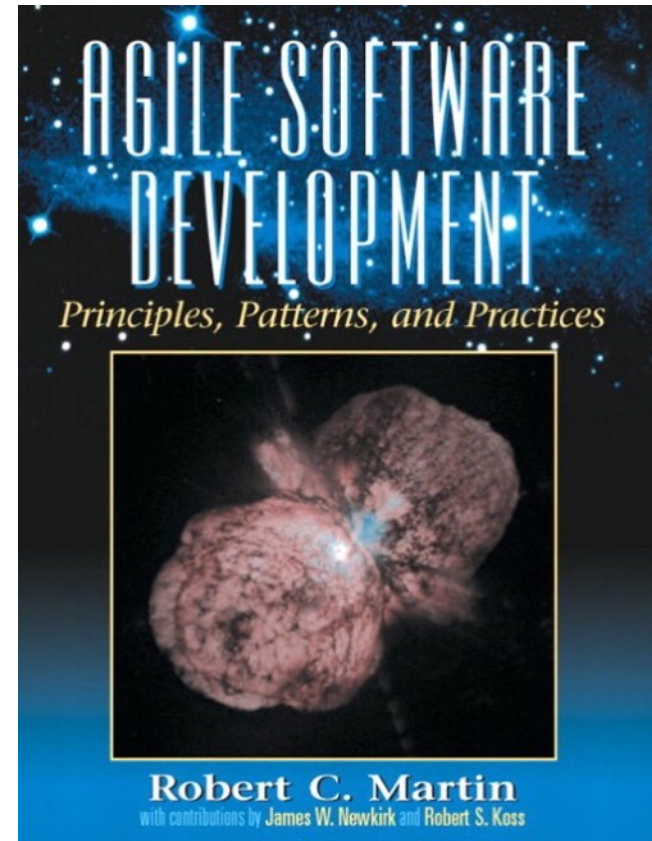
Clean Code

- Very well written book on all aspects of "Clean Code"
- Must-read for every professional C++ programmer

- ISBN-10: 9780132350884
- ISBN-13: 978-0132350884
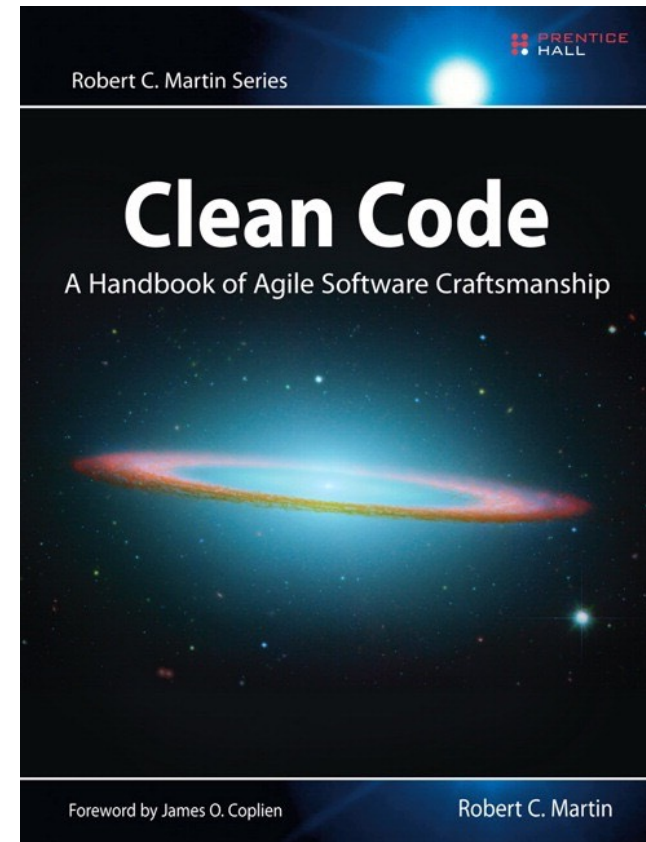
Clean Architecture
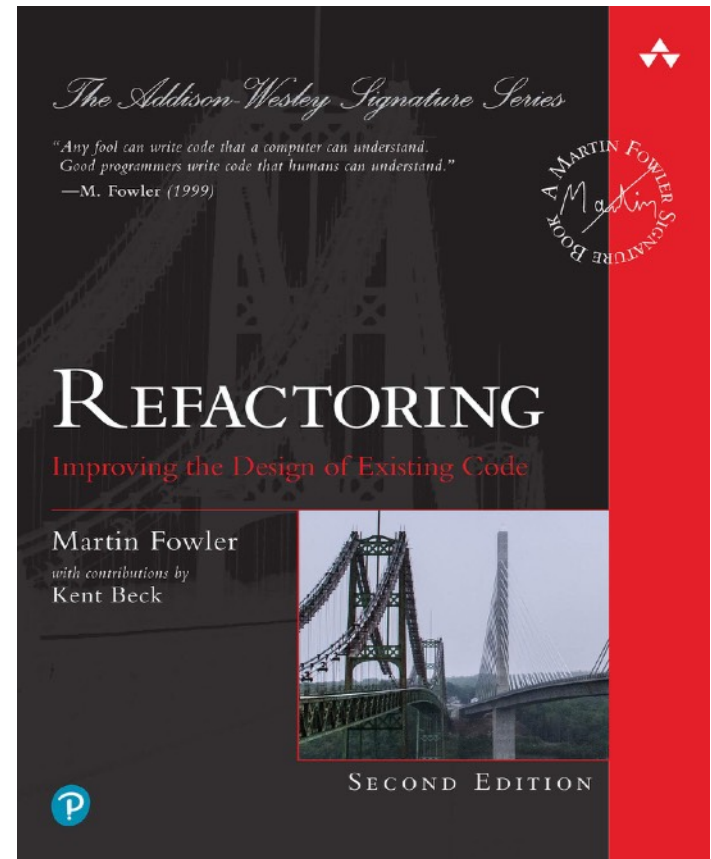
- Very good overview of software design/architecture
- Very recommended for every software developer

- ISBN-10: 0134494164
- ISBN-13: 978-0134494166

4. Refactoring and Testing

Refactoring

- Best available reference on refactoring techniques
- Well structured and written
- Recommended as reference for refactoring efforts

- ISBN-10: 0134757599
- ISBN-13: 978-0134757599

Working Effectively with Legacy Code

- Brilliant definition of legacy code
- Best available reference on how to work with legacy code
- Well suited structure
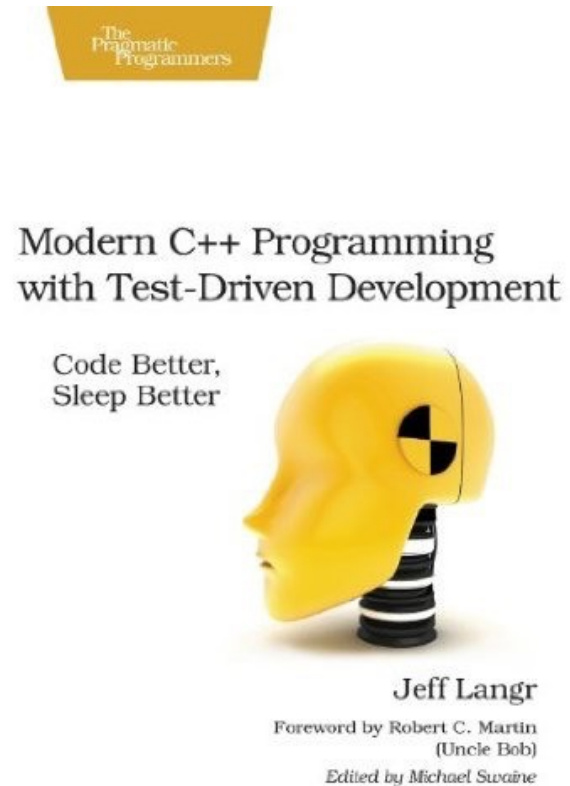- Recommended for nearly all companies ;-)

- ISBN-10: 0131177052
- ISBN-13: 978-0131177055
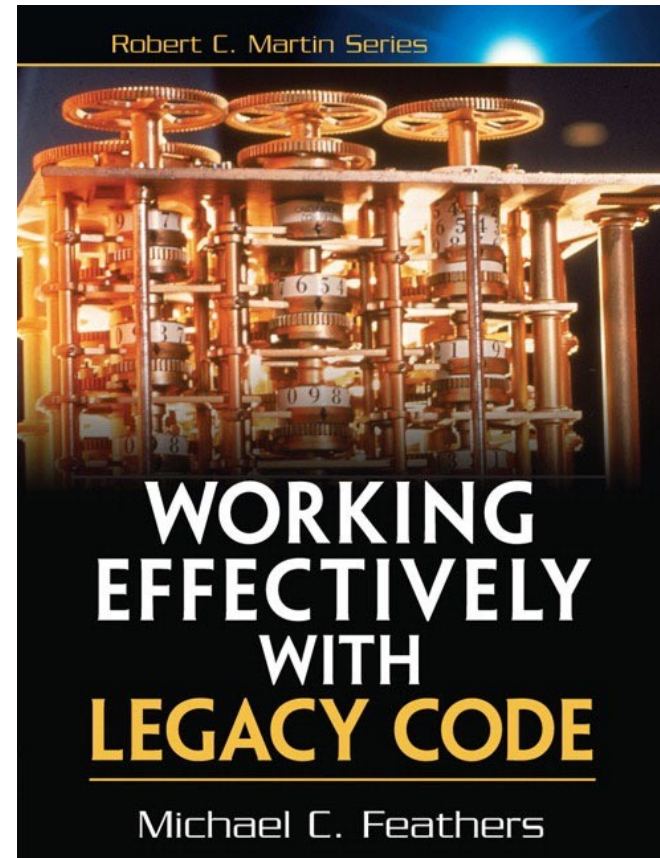
# Modern C++ Programming with Test-Driven Development C++11

- Very thorough introduction to TDD
- Good examples
- Contains chapters on multithreaded tests
- Must-read for all companies ;-)

- ISBN-10: 1937785483
- ISBN-13: 978-1937785482

The Pragmatic Programmers

Modern C++ Programming
with Test-Driven Development

Code Better,
Sleep Better

Jeff Langr

Foreword by Robert C. Martin
(Uncle Bob)

Edited by Michael Swaine

5. Performance Optimization

The Art of Writing Efficient Programs

- Lots of advise on all aspects of performance
- Practical advice on how to benchmark performance

- ISBN-10: 1800208111
- ISBN-13: 978-1800208117
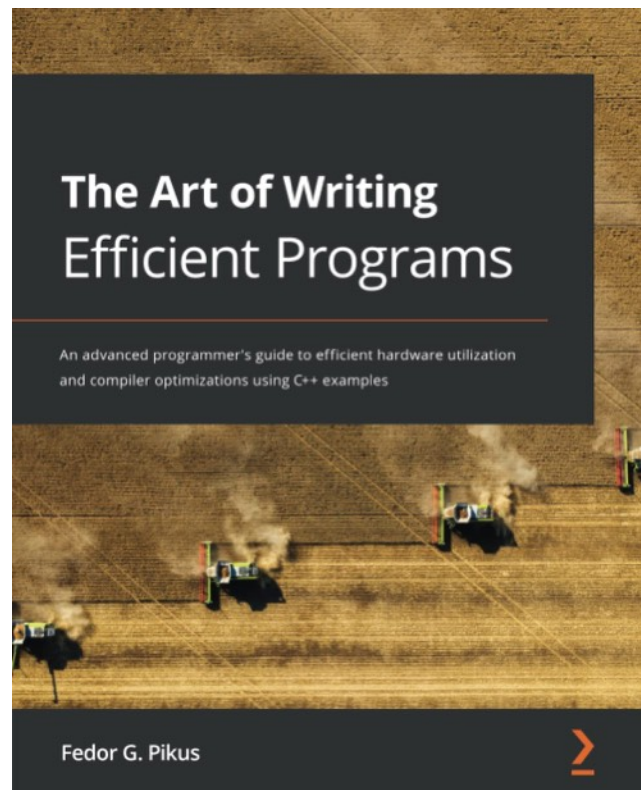
6. Professional Programming

The Pragmatic Programmer

- Expert advise on all aspects of every day software development
- Recommended read for every serious software programmer

- ISBN-10: 0135957052
- ISBN-13: 978-0135957059
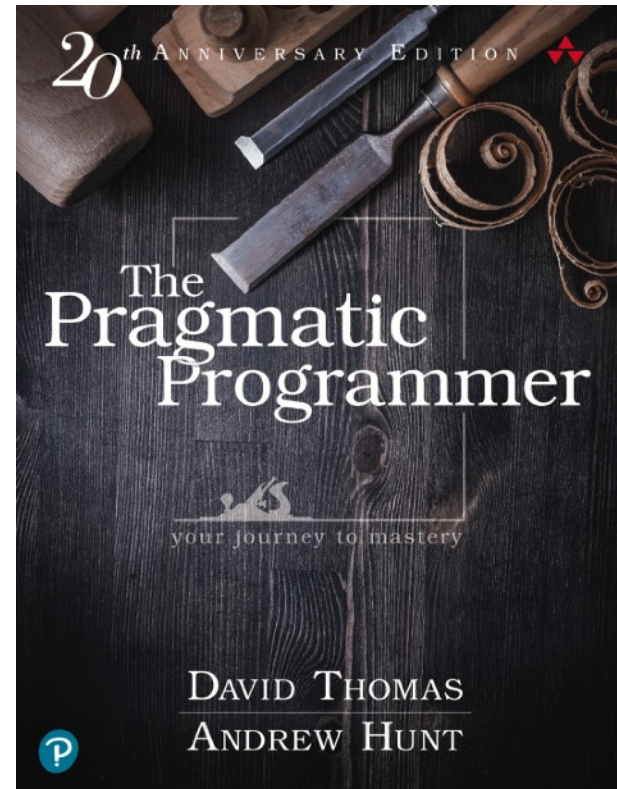
Code Craft: The Practice of Writing Excellent Code

- Practical advise for the daily work in the "software factory"
- Recommended read for every software developer

- ISBN-10: 1593271190
- ISBN-13: 978-1593271190
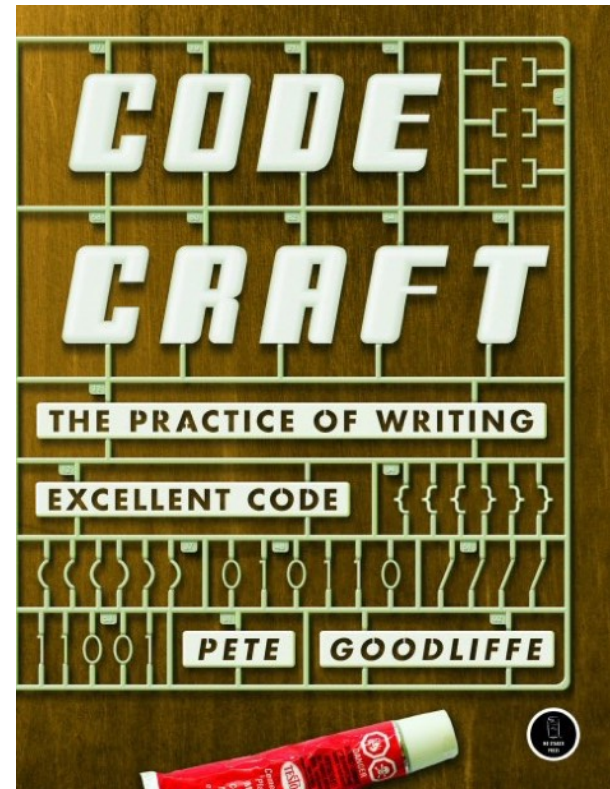
Becoming a Better Programmer

- A handbook for people who care about code
- Addresses all the essential aspects of software development

- ISBN-10: 9781491905531
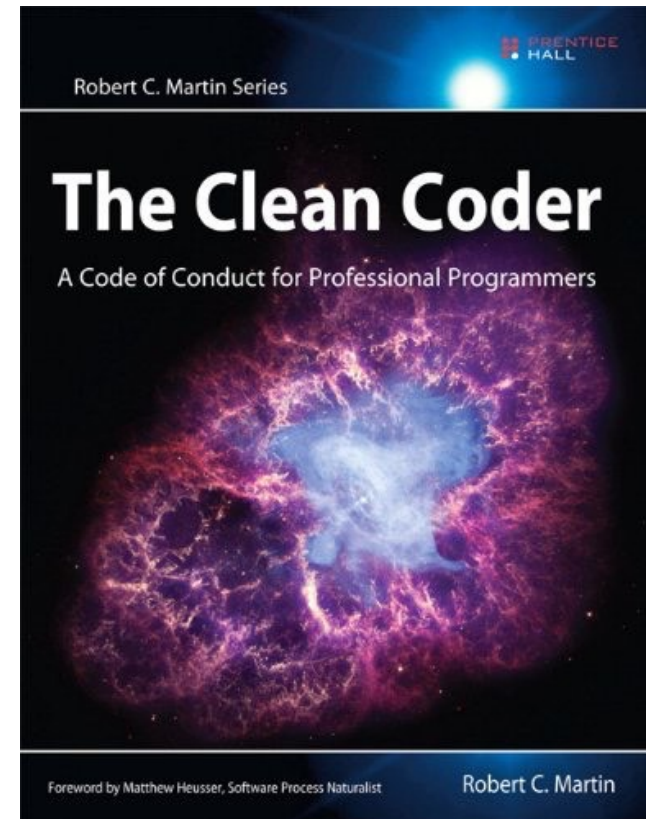- ISBN-13: 978-1491905531
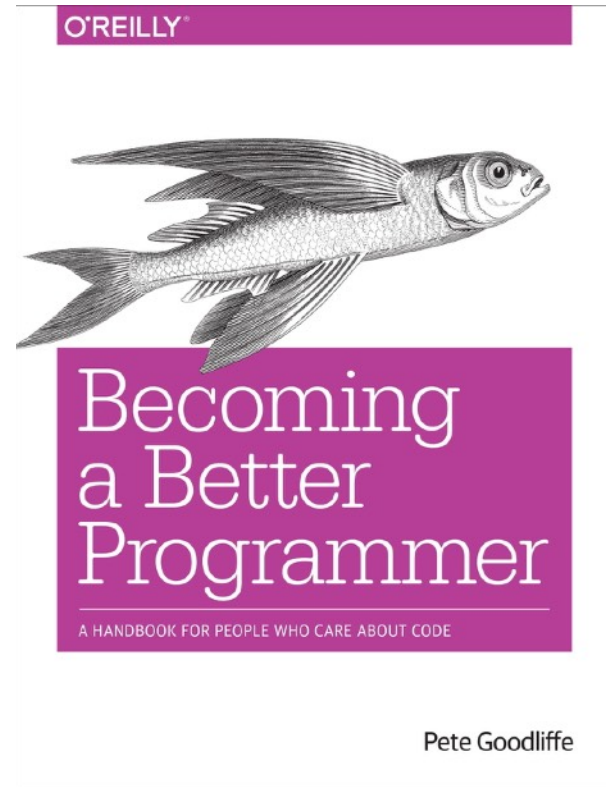
Your Code as a Crime Scene (Second Edition)

- Practical advice how to find the hot spots in your code base
- Hands-on example from real code bases

- ISBN-13: 979-8888650325
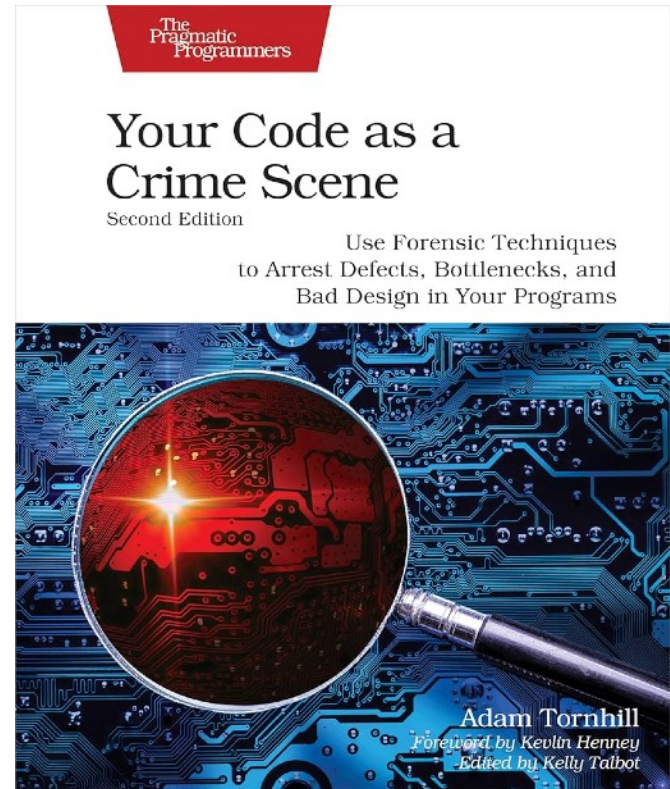
The Clean Coder

- Successor of Clean Code
- Focus on the programmer himself
- Recommended for every aspiring professional

- ISBN-10: 0137081073
- ISBN-13: 978-0137081073

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Xing: xing.com/profile/Klaus_Iglberger/cv