



5 Courses

**Programming Foundations  
with JavaScript, HTML and  
CSS**

**Java Programming: Solving  
Problems with Software**

**Java Programming: Arrays,  
Lists, and Structured Data**

**Java Programming:  
Principles of Software  
Design**

**Java Programming: Build a  
Recommendation System**



Nov 5, 2020

**Joshua Janoe**

has successfully completed the online, non-credit Specialization

# Java Programming and Software Engineering Fundamentals

This Specialization covers the fundamentals of software development, focusing on a beginner-level introduction to rigorous problem-solving approaches while still embracing and extending traditional methods of computer science and software engineering. You'll explore foundational concepts such as algorithm development, data representation, and debugging, using common tools such as HTML/CSS, Javascript, and Java. In the final Capstone Project, you'll apply the skills you learned by creating a working recommender system that can help users find and choose items, such as films, books, or restaurants. Google has contributed real-world projects and the involvement of its engineers as guest lecturers to these courses.

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

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Associate Professor of  
the Practice  
Electrical and Computer  
Engineering

Robert Duvall  
Lecturer  
Computer Science

Susan H. Rodger  
Professor of the  
Practice  
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