



Academic Review

for the monograph

Practical Benchmarking and Hands-On Evaluation of AI Popular Systems

Authored by: Prof. Dr. Alexander Iliev Iliev

From: Prof. Dr. Vladimir Stantchev, SRH University of Applied Sciences, Berlin

Generative AI has changed how software is written, tested, and shipped, and teaching has not yet caught up. Curricula still lean on theory while the working engineer now spends part of every day directing an AI assistant and judging what it returns. This manuscript addresses exactly that gap: it is a collection of worked case studies showing how contemporary AI assistants are used across the software and machine-learning lifecycle, from the first prompt to a validated result.

Its defining quality is pedagogical. The author does not offer isolated snippets or toy examples; he builds complete scenarios that a reader can follow end to end, stating the problem, interacting with the AI system, generating executable code, training a model, evaluating the output, and refining it over successive passes. That arc mirrors how the work is actually done, and following it teaches far more than a finished solution ever could.

The book is well matched to graduate study in artificial intelligence, machine learning, data science, and AI engineering. Its structure lends itself to laboratory sessions, project work, independent study, and capstone assignments. Students are asked not to run prepared examples but to interrogate them: to judge AI-generated solutions, find their limits, compare alternatives, and form their own engineering judgment. That last skill — knowing when to trust the machine's output and when to override it — is becoming the central competence of the profession.

The technical exposition is clear where clarity is hardest to achieve. Deep learning, convolutional networks, TensorFlow implementation, model optimisation, and performance evaluation are introduced in an order that builds, and the figures, code listings, and experimental outputs carry genuine explanatory weight. The author explains enough to ground the reader and stops before the abstraction becomes an obstacle.

The practical framing widens the audience well beyond the classroom. Alongside its use as a textbook or supplementary university resource, the book will serve software engineers, AI practitioners, and technical consultants who need to see how these assistants fit into ordinary engineering tasks. The scenarios resemble real industrial work closely enough that the material transfers directly.

The most commendable feature is the author's discipline about what AI can and cannot do. The manuscript neither inflates nor dismisses the capability of current systems; it treats the AI as a capable assistant whose output demands validation, critical reading, and professional accountability. That stance teaches responsible use of generative tools while reinforcing the engineering principles that should govern them, the right lesson to instil before such habits harden in a student's practice.



The presentation is coherent and easy to navigate. The chapters progress so that readers of differing experience can build practical competence without losing sight of the underlying concepts, and the consistent structure makes the book usable as both a teaching text and a working reference.

Beyond immediate instruction, the manuscript takes on a problem that universities and industry now share: preparing engineers to work alongside intelligent systems rather than merely to use them. By showing concrete interaction strategies and insisting on systematic evaluation of what the AI produces, the book equips readers with skills that should stay relevant as the underlying systems keep changing.

One observation for a future edition: because the case studies are tied to specific tools and their current behaviour, some examples will age as the assistants are updated, and a short guide to reproducing the exercises against newer model versions would extend the book's shelf life. This is a matter of maintenance, not of substance, and it does not diminish the present contribution.

Overall, Practical Benchmarking and Hands-On Evaluation of AI Popular Systems is a timely, wellorganised, and educationally valuable book. It joins practical implementation to sound engineering practice and gives the reader a realistic picture of how modern AI systems support software and machine-learning work. I am confident it will find a lasting place in higher education, professional training, and independent study.

Recommendation

The manuscript is a significant educational and practical contribution to the field of artificial intelligence. Its clear organisation, its emphasis on hands-on learning, and its relevance to current AI engineering make it valuable to students, educators, researchers, and industry professionals alike. I recommend it for publication; it will add real substance to the growing literature on applied artificial intelligence.

With regards,

Prof. Dr. Vladimir Stantchev

SRH University of Applied Sciences, Berlin

Berlin, July 15th 2026