AI-Assisted Programming for CS Lecturers

From slide decks to interactive demos: build better teaching materials in a fraction of the time

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Target audience: Faculty members in computer science departments · Mixed coding experience assumed

DELIVERY FORMATS

Lecture

1 hour · Zoom or in person

₪4,000

Up to 50 participants

- → **See what AI-assisted coding makes possible for teaching**
- → **Leave with a concrete picture of where to start**

- GitHub Copilot in action: writing real code by describing intent in plain language
- Demo: producing a lecture slide deck with text, code snippets, and formulas
- Demo: building an interactive K-means visualization
- Demo: calling an LLM API to build a simple AI-powered teaching tool
- Instructor-led only, no participant coding

Workshop

3 hours · Zoom or in person

₪9,000

Up to 20 participants

- → **Prepare lecture materials faster**
- → **Build interactive demos that engage students**

- GitHub Copilot workflow: write and iterate code by describing what you want
- Creating a code-friendly lecture slide deck with text, snippets, and formulas
- Building an interactive classroom visualization (K-means) from scratch
- First LLM API call: constructing a simple AI-powered teaching tool together
- Hands-on throughout, participants code at every stage

Course

3 sessions × 3 hours · Zoom or in person

₪22,000

Up to 15 participants

- → **Master the full AI-assisted teaching toolkit**
- → **Automate grading and repetitive teaching tasks**

- Session 1: GitHub Copilot fundamentals. Writing, debugging, and refactoring code through natural language; code-friendly lecture slide decks
- Session 2: Interactive visual tools. Building and deploying classroom demonstrations (e.g. K-means)
- Session 3: LLM APIs. Automating grading and batch feedback, building a reusable toolkit
- Participants leave with working tools ready for their courses

PREREQUISITES (WORKSHOP & COURSE)

Participants are expected to arrive with VS Code installed and GitHub Copilot active (**free for faculty and students**). Instructions on how to obtain an API key giving access to leading LLM models will be sent in advance. No installation time is budgeted into the session itself.

All formats are tool-agnostic in spirit: while GitHub Copilot and VS Code are used throughout, the principles apply across AI coding assistants. No prior AI experience is required. Participants with limited recent coding practice are welcome. The AI-assisted approach is designed precisely to lower that barrier.

AI-Assisted Programming for CS Students

Stop just using AI to write code. Learn to work like a professional software developer

Boris Gorelik, Ph.D. · Data science consultant and educator · boris@gorelik.net

Target audience: CS students, first year and above · Familiarity with AI coding tools assumed

DELIVERY FORMATS

Lecture

1 hour · Zoom or in person

₪4,000

Up to 100 participants

- → **Understand why writing code is only half the job**
- → **See the professional workflow used in real software teams**

- GitHub Copilot as a professional tool: not just autocomplete, but a thought partner
- Demo: the full Git workflow - branch, commit, push, pull request, merge
- Demo: creating a GitHub issue, working on it, and closing it via a PR
- Demo: AI-assisted code review - catching bugs and improving code quality automatically
- Instructor-led only, no student participation

Workshop

3 hours · Zoom or in person

₪9,000

Up to 20 participants

- → **Practice the professional development cycle hands-on**
- → **Use AI code review to write cleaner, more defensible code**

- GitHub Copilot best practices: prompting effectively, iterating, avoiding common traps
- Git fundamentals in practice: branching strategy, meaningful commits, pull requests
- End-to-end issue flow: open a GitHub issue → branch → implement → PR → AI review → merge
- Running an AI code review and acting on its feedback
- Every participant completes the full cycle on their own machine

Course

3 sessions × 3 hours · Zoom or in person

₪22,000

Up to 20 participants

- → **Build a real product from scratch using professional tools and practices**
- → **Graduate with a portfolio project and a workflow you can use immediately**

- Session 1: Project setup. GitHub repo, Copilot workflow, best practices; build the first working version of a Python web app that calls an LLM API
- Session 2: Feature development. Open issues on GitHub, work on features in branches, submit and review PRs using AI code review tools
- Session 3: Refactoring and polish. Act on code review feedback, improve code quality, close all open issues, final retrospective on the workflow
- Students leave with a working app and a complete GitHub project history

PREREQUISITES (WORKSHOP & COURSE)

Participants are expected to arrive with VS Code installed, a GitHub account active, and GitHub Copilot enabled (**free for students**). Basic familiarity with Python is assumed. Instructions on how to obtain an API key giving access to multiple LLM providers will be sent in advance. No installation time is budgeted into the session itself.

The focus of this program is professional habits, not AI novelty. Students who already use Copilot for assignments will learn to use it the way industry does: with version control, structured collaboration, and code quality standards built in from the start.

AI-Assisted Programming for Industrial Engineering Students

Stop waiting for someone else to build the tool you need. Build it yourself, today

Boris Gorelik, Ph.D. · Data science consultant and educator · boris@gorelik.net

Target audience: Industrial engineering students · **No programming background required**

DELIVERY FORMATS

Lecture

1 hour · Zoom or in person

₪4,000

Up to 100 participants

- → **Discover that building useful tools is within reach, no CS degree needed**
- → **See what IE-relevant tools look like when built with AI assistance**

- What AI-assisted coding is, and why it changes what non-programmers can build
- Demo: an interactive dashboard that reads an Excel file and visualizes a production process
- Demo: a tool that flags anomalies in supplier or operations data
- Demo: an LLM-powered assistant that answers questions over a dataset
- Instructor-led only, no student participation

Workshop

3 hours · Zoom or in person

₪9,000

Up to 20 participants

- → **Build a working data tool without writing a single line of code manually**
- → **Leave with something you can actually use in your studies or internship**

- GitHub Copilot as a non-programmer's superpower: describe what you want and get working code
- Building an interactive web app that loads, filters, and visualizes tabular data
- Adding an LLM-powered layer: ask questions about your data in plain language
- Iterating and improving the tool through conversation with the AI
- Every participant builds and runs their own app during the session

Course

3 sessions × 3 hours · Zoom or in person

₪22,000

Up to 20 participants

- → **Design and build a complete IE tool from the ground up**
- → **Become the person on your team who can turn a problem into a working solution**

- Session 1: From idea to working prototype. GitHub Copilot basics, building an interactive data dashboard around a real IE scenario (e.g. process monitoring, inventory tracking)
- Session 2: Making it smarter. Integrating an LLM API for natural language data interaction; adding analysis and alerting logic
- Session 3: Refinement and presentation. Improving the interface, handling edge cases, and presenting the finished tool as a portfolio piece
- Students leave with a working, deployable app built around a real industrial engineering problem

PREREQUISITES (WORKSHOP & COURSE)

Participants are expected to arrive with VS Code installed and GitHub Copilot active (**free for students**). **No prior programming experience is required.** Instructions on how to obtain an API key giving access to multiple LLM providers will be sent in advance. No installation time is budgeted into the session itself.

This program is not about learning to code. It is about learning to build. IE students who complete this program will be able to turn a process problem or a data challenge into a working tool on their own, without depending on a software team to do it for them.

From Thinking Machines to Human Minds

A non-technical introduction to AI: what it really is, how it thinks, and what it reveals about us

Boris Gorelik, Ph.D. · Data science consultant and educator · boris@gorelik.net

Target audience: Students from all departments · **No technical background required**

DELIVERY FORMATS

Lecture

1 hour · Zoom or in person

₪4,000

Up to 150 participants

- → **Understand what AI actually is, beyond the hype**
- → **See how AI behavior reflects human psychology**

- From mechanical calculators to modern language models: a journey through AI history
- What emergent behavior means and why AI sometimes surprises even its creators
- How psychological framing shapes both human and machine decision-making
- Live demos: AI doing the unexpected, and why that matters
- Instructor-led only, no prior knowledge of any kind required

Workshop

3 hours · Zoom or in person

₪9,000

Up to 30 participants

- → **Develop a critical, informed perspective on AI tools you use every day**
- → **Walk away with mental models that help you make better decisions with and about AI**

- Interactive exploration of how AI systems develop unexpected behaviors
- Cognitive psychology of decision-making: how biases affect both humans and AI
- Hands-on exercises: spotting AI failures, framing effects, and flawed outputs
- Group discussion: what AI can and cannot do in your field of study
- Practical frameworks for evaluating AI-generated content critically

Course

3 sessions × 3 hours · Zoom or in person

₪22,000

Up to 30 participants

- → **Build genuine AI literacy, not just familiarity, but understanding**
- → **Be equipped to engage thoughtfully with AI in your career and civic life**

- Session 1: How AI thinks. History, breakthroughs, and failures; emergent behavior and why machines surprise us; live demos and discussion
- Session 2: AI and human psychology. Cognitive biases, decision-making under uncertainty, how framing shapes both human and machine outputs
- Session 3: AI in the real world. Ethical implications, societal impact, domain-specific applications, and how to stay critically informed as the field evolves
- Students leave with a durable framework for thinking about AI, in any field

PREREQUISITES

No prior knowledge of programming, mathematics, or AI is required. This program is designed to be accessible and engaging for students from any academic background: engineering, humanities, business, or sciences.

Artificial intelligence is reshaping every field, not just technology. This program gives students the conceptual vocabulary and critical thinking tools to engage with AI as informed citizens and future professionals, regardless of their major.