

# AI CODING CHEATSHEET

*What works in May 2024 [v0]*

## LOW-RISK CODE GEN

- Human in the loop
- Prototyping / Greenfield
- Boilerplate
- Test-Driven Development  
(Ping Pong "Pairing")

## INSIGHT

- Question answering (kinda)
- Semantic Search on docs and code
- Commit Messages / PR summary
- Low-level doc generation
- Troubleshooting help (stack traces)

## SAFE MODIFICATIONS

- Tool-assisted refactoring
- Adding type-hints
- Backfilling Tests
- Dark launches
- Formal Methods

## INCANTATIONS

- Command-line invocations
- Regex (Regular Expressions)
- LaTeX
- Markup and styling
- Repetitive edits

## HAZARDS

- LLM-output is untrusted
- Vendor data risk
- Magical thinking
- Anthropomorphizing
- Unsustainable practices
- Ignoring the craft

## MAKING IT BETTER

- Prompting
- Small Steps
- Tools / Feedback
- RAG (Retrieval Augmented Generation)
- Fine-tuning
- Better models (\$\$\$)