AI Security:
Course Logistics

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POSTECH

POSTECH

GRADUATE SCHOOL OF ARTIFICIAL INTELLIGENCE
POSTECH GSAI

POSTECH COMPUTER SCIENCE & ENGINEERING

TA

- Sechan Lee (GSAI)

Textbook

- No Official Textbook

Grading

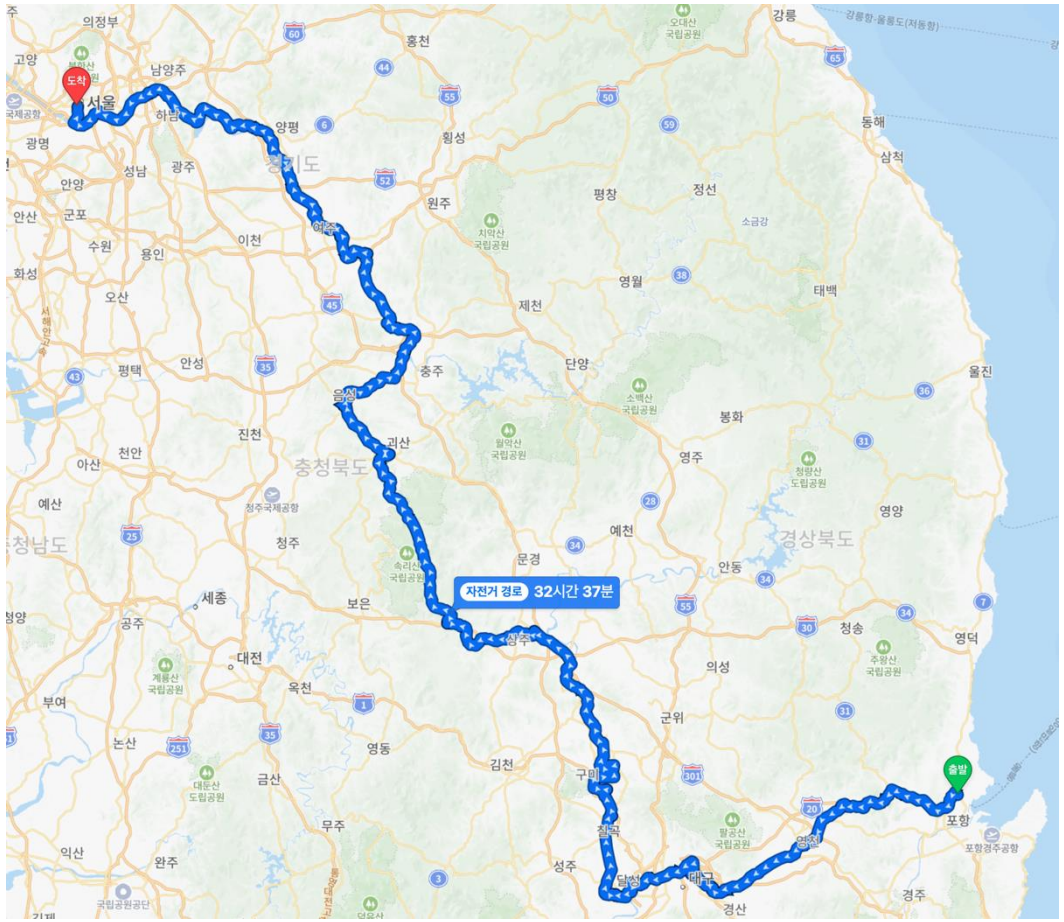
- Assignment / Presentation (**80%**)
  - HW1 (**10%**)
  - HW2 (**20%**)
  - Final Project (**50%**)

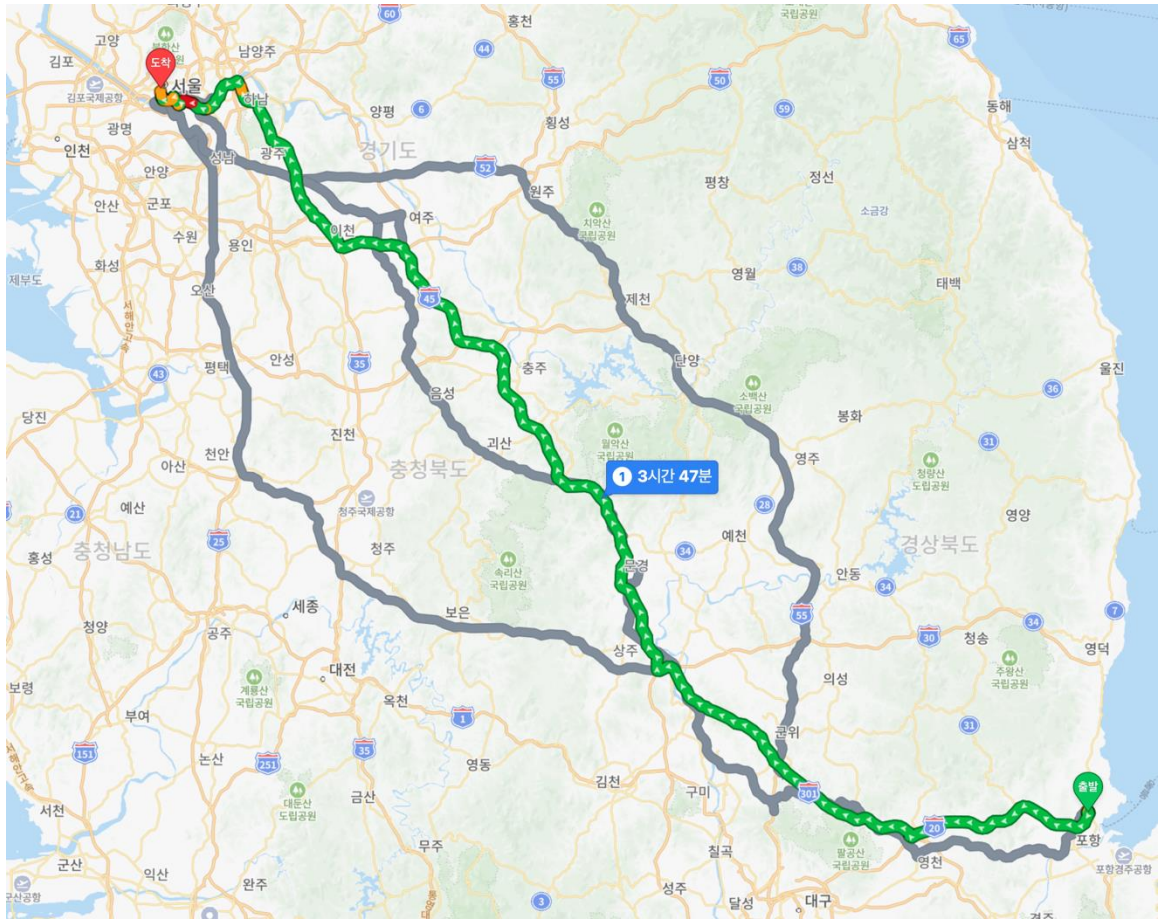
- Participation (**20%**)
  - **5%** for each (question, answer) pair

GenAI Usage Policy

Should We Use Generative AI?

- Should We Use A Car?





GenAI Usage Policy

Should We Use Generative AI?

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DeepLearning.AI

THE BATCH

September 3, 2025 What Matters in AI Right Now

Subscribe Submit a tip

Dear friends,

There is significant unmet demand for developers who understand AI. At the same time, because most universities have not yet adapted their curricula to the new reality of programming jobs being much more productive with AI tools, there is also an uptick in unemployment of recent CS graduates.

When I interview AI engineers — people skilled at building AI applications — I look for people who can:

- Use AI assistance to rapidly engineer software systems
- Use AI building blocks like prompting, RAG, evals, agentic workflows, and machine learning to build applications
- Prototype and iterate rapidly

GenAI Usage Policy

Should We Use Generative AI?

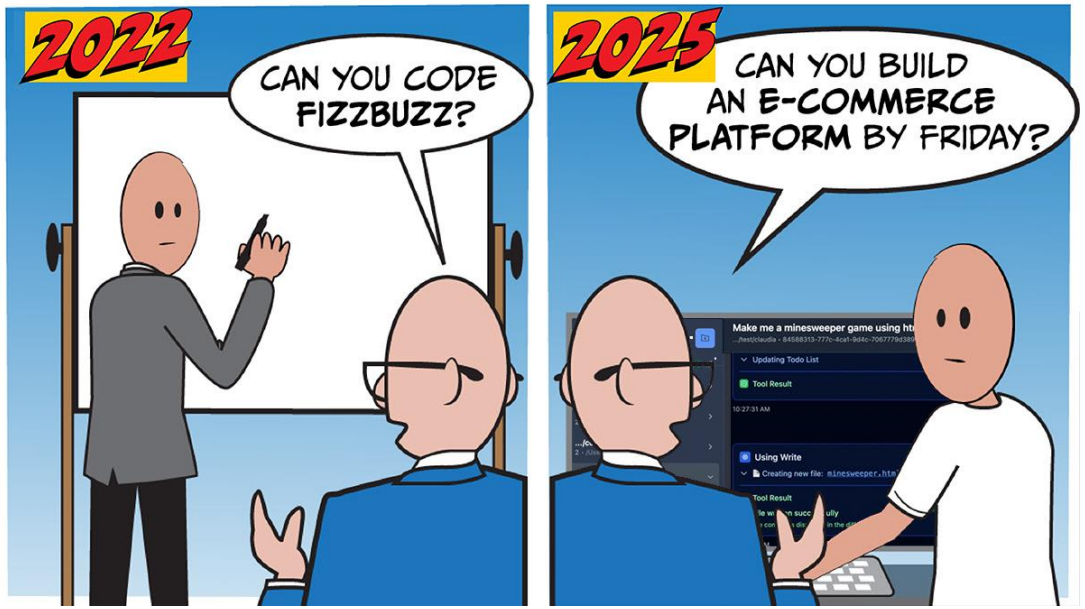
Andew Ng

Punchcard Programmer

GenAI Usage Policy

Should We Use Generative AI?

Andew Ng



GenAI Usage Policy

- Coding Agents – OK but carefully verfy results
- QA Agents – OK but carefully verfy results
- Whatever Agents – OK but carefully verfy results

- Feel free to use
  - However, intensitvely use it as your peers will use it and I'll use a relative grading system.

Homeworks

- HW1
  - Choose an interesting victim non-generative model
    - Image classifiers, regressors, object detectors, …
  - Define an attack goal (~= a security goal)
  - Implement an attacker to achieve the attack goal.
  - Present your method in about 20 mins
    - Persuade me that your selected victim model, attack goal, and method are interesting.
    - You can also share your failure experience.
    - You should answer my questions on details.
    - Probably we may not find novel attack goals or attack methods; that's fine.

Homeworks

- HW2
  - Choose an interesting victim generative model
    - LLMs, LRMs, LCMs, diffusion models, VLMs, VLAs
  - Define an attack goal (~= a security goal)
  - Implement an existing attacker to achieve the attack goal.
  - Present your method in about 20 mins
    - Persuade me that your selected victim model, attack goal, and method are interesting.
    - You can share your failure experience.
    - You should answer my questions on details.

Final Project

- Use OpenClaw for your victim AI model
- Define an attack goal (~= a security goal)
- Propose an attacker to achieve the attack goal
  - Justify why your attacker is novel via table comparison
  - Again, you can brainstorm with GenAI on novel ideas.
- Present your method in about 30 mins
  - You can share your failure experience but has a little penalty.
  - You should answer my questions on details.
  - Your method is consdered to be novel if ChatGPT says so.
- (optional) Write a paper in the case of undergrads

Q&A

Welcome any feedback on the HW/Project style

Q&A

Homeworks

- HW3
  - Choose an interesting victim agentic AI model
    - OpenClaw
  - Define an attack goal (~= a security goal)
  - Implement an existing attacker to achieve the attack goal.
  - Present your method in about 20 mins
    - You can share your failure experience