## C++ Programming Unique and Beyond Others

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## Programming & Problem-Solving Skills

- Programming Skills
  - Very familiar with C++ syntax and using it
  - Fairly administered skill in other courses
- Problem-Solving
  - You will face a lot of computational problems in practice and homework
  - Programming questions are mainly from my competitive programming experience
  - Rarely administered skill in other courses

## Project-Building and Design Skills

- Project-Building Skills
  - Many students feel lost when they try even medium-size projects (~300 lines of code)
  - Several projects of different sizes and their solutions are provided
  - o Tackle and compare. Rewrite.
  - Partially administered skill in other courses
- OO Design Skills
  - In addition to learning OOP syntax, a lot of notes about the design.
  - OOP questions are mostly invented to achieve several goals:
    - Mastering the OOP concepts
    - Enforcing a lot of design heuristics & OOD
    - Preparing you for design principles and patterns (many are embedded)
  - OOP projects to administer the concepts
  - Rarely administered skill in other courses

## By the end of the journey

- Solid understanding of programming concepts and its C++ syntax
- Mastering the target 4 skills
- With the administered problem-solving skills
  - You can start competitive programming smoothly in Div2-A/B Codeforces
  - Smooth start in Data Structure course
  - Smooth start in Algorithms course
- With the administered project-building and design skills
  - Smooth start in Software Engineering course
  - Later, smooth start in one of the technology tracks in frontend or backend

"Acquire knowledge and impart it to the people."

"Seek knowledge from the Cradle to the Grave."