Honors Track: *Competitive Programming & Problem Solving*

Introduction

Kevin Verbeek  (Track coordinator)
Programming Contests

ACM ICPC

Google Code Jam

IEEEXtreme

Facebook Hacker Cup
Programming Contests

Algorithms

Engineering

AI

Anything else?
Skills

Problem Solving
- Algorithmic techniques
- Standard algorithms
- No proofs…
- … but how to apply them

Programming
- Effective programming
- Writing efficient code
- Using standard libraries
- Avoiding common mistakes
Process

Three Stages

Learn
- New algorithms
- New techniques
- New tools

Train
- Solve problems
- Implement algorithms
- Teamwork

Compete
- Enter various contests
- Win!
Teamwork

Teams

- Different skills
- Learn from each other
- Learn to work together

Teamwork occurs when diverse abilities and insights join together to work toward a common goal.

Large ambitious goals usually require that people work together.
Soft skills

- Researching
- Presenting (seminar)
- Teamwork
- Organizing
Career benefits

Career Perspective
- Problem solving
- Effective implementation
- Valuable skills…

High-tech companies
- Organize contests
- Sponsor contests
- Recruit at contests
- Job interviews

Algorithmic Problem Solvers

Google
Microsoft
IBM
facebook
amazon
Yahoo!

TU/e Technische Universiteit Eindhoven University of Technology
You are in charge

Honors academy mantra

You are in charge!

You choose

- Which skills to develop
- How to train
- Which contests to compete in

Your coach will

- Provide training material
- Help you get better
Application

Student limit
- The Honors Academy accepts only the Top 100 students
- This is about 10-15 students per track
- Can change depending on popularity of tracks (max = 18)

Requirements
- Student must have 60 ECTS at end of year
- Some exceptions exist …

Process
- May 6: Deadline motivation letter (see HA web page)
- May 14-18: Track interviews
- Few weeks later: Acceptance notification (conditional)
Questions