

## Programming:

1. Application for different Platforms:
  - a. Desktop Apps
    - i. Win, Lin, Mac
  - b. Web Apps
    - i. Client (Frontend), Server (Backend)
  - c. Mobile Apps
    - i. Android, IOS, Win Phone, Tizen, Linux, Symbian, FirefoxOS, WebOS, ...
    - ii. Cross Platform (React Native, Cordova, Xamarin)
  - d. Server App / Web Service / Backend
2. Graphic & Simulation:
  - a. Game (Graphic Engine, Physics Engine)
  - b. Simulation (Graphics, Multi-Physics)
  - c. Computational Geometry, Computer Graphics, Physics, Optics, Acoustics, Haptics
3. Scientific Programming
  - a. Estimation Problems
  - b. Machine Learning
  - c. Image / Acoustic Processing (Machine Vision / Machine Audition)
  - d. Data/Signal/Image/Text Processing
    - i. Decision Making
    - ii. Raw observation to higher lever information (Advanced Sensors)
    - iii. Data Fusion
  - e. Algorithms, Linear Algebra, Statistics, Numerical Calculation, Optimization
4. System Programming
  - a. OS, Drivers, Compiler, Build Tools
  - b. Services
5. Embedded Programming
  - a. Industrial Control / Automation
  - b. Small Devices, IoT,
6. Hardware Programming (Computer Aided Digital System Design)
  - a. Verilog, VHDL, System C, HLS, ...
  - b. For FPGA, CPLD