CLINICAL APPLICATIONS OF COMPUTATIONAL MEDICINE

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WORK DISTRIBUTION

- Video: Neo, Delun Zhang, Yuya Yuan

- Code: Jeff

- Robotics arm: All

OUR PLAN

Week 1 (July 5 - July 11)

- **Objective: Preparation and Local Research**

    * Study the theory and implementation of the three normal estimation methods.

    * Set up and configure the development environment.

    * Acquire point cloud datasets for local testing.

    * Implement the three methods and conduct initial local tests.

Week 2 (July 12 - July 25)

- **Objective: Integration, Testing and Data Collection**

    * Integrate the three methods into the robotic system and conduct functional tests.

    * Collect data from the tests for further analysis.

    * Develop evaluation criteria, focusing on positioning accuracy and processing speed.

Week 3 (July 26 - July 30)

- **Objective: Data Analysis and Video Production**

    * Analyze test data and compare results to identify the best method.

    * Prepare presentation materials.

    * Produce a presentation video, covering project background, implementation, test results, and conclusions.

Week 4 (July 31 - August 6)

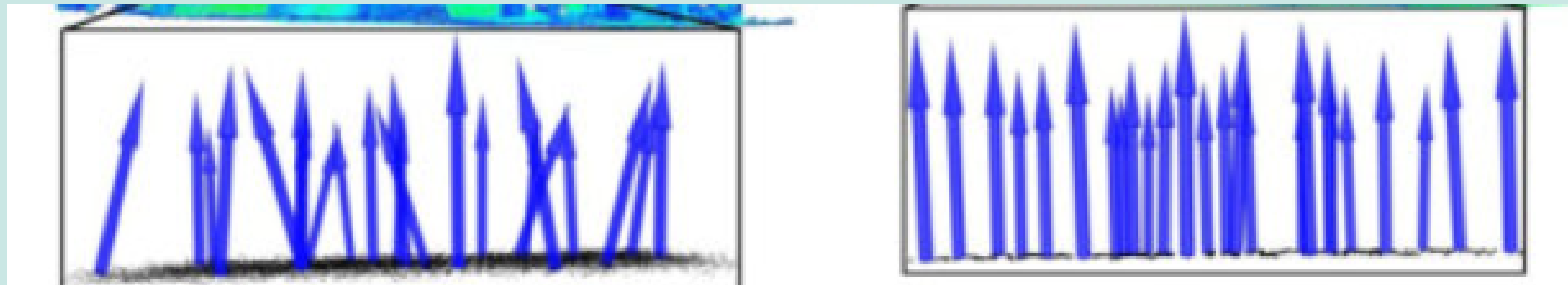- **Objective: Presentation Preparation**

    * Prepare for possible questions

WHAT WE HAVE DONE THIS WEEK

- Dive into three methods to calculate normal vectors
- Finished the first method (using open3d lib)

WORKFLOW

1. Read ply files
2. Downsampling
3. Calculate normal vectors
4. Average K closest points' normal vectors to lower the potential error

QUESTIONS

THANK YOU FOR LISTENING