Boyang YU

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Education

09/2020 – 08/2022 Peking University, Beijing, China

- Bachelor of Science in **Physics**, School of Physics

· Completed coursework for a Bachelor of Science in Physics for the first two years.

· Made a decision to transition to Computer Science and switched majors in 09/2022.

Since 09/2022 Peking University, Beijing, China

(Graduated in fall 2025)

- Bachelor of Science in **Computer Science**, School of Electronics Engineering and Computer Science.

· GPA: 3.60/4.00

Research Experiences

05/2023 - Present Prof. **Libin Liu**'s group, PKU, China

Projects:

· Implemented and replicated fundamental kinematic algorithms including FK/IK and motion interpolation smoothing, etc.

· Implemented **fatigue state action generation** under 3-CC control using **AMP** (adversarial motion priors) on **Isaacgym**.

· Collaborated on **muscle-driven** motion generation and volumetric muscle simulation work.

· Currently engaged in refining AdaptNet for **motion style transfer** using GANs, integrating data generated from videos.

07/2023 – 09/2023 **VCL (Visual Computing and Learning) Lab** Summer School, PKU, China

Projects:

· Successfully reproduced the physics control **deep reinforcement learning** algorithm, DeepMimic.

· Investigated the expressive capability of AMP **adversarial generation** algorithms.

Related Course Projects

· **Achieve Real-time Motion Control in Kinematics/Physics Simulation:**

Utilized **motion matching** and interpolation smoothing in a Physics Simulator with PD control, achieving t**op score.**

· **Fine-Tuning the Segment-Anything Model and Integrating a Downstream Classifier:**

Fine-tuned the **segment-anything model** on a medical CT dataset, integrating a **classifier model** for high accuracy in organ type identification for CT scans.

Language Skills

06/2023 **TOEFL** R: 30 L: 27 S: 22 W: 21 Total: 100

Technical Skills

· Proficient in **C++** and **Python** programming languages.

· Experienced in using **Pytorch** for deep learning tasks.

· Familiar with **reinforcement learning, character animation,** and **physics control algorithms.**

· Adept grasp of **machine learning theory**.

· Possesses basic knowledge of **physics** principles.

· Experienced with using **Isaacgym** for simulation tasks.

· Experienced with **generative models** including **Variational Autoencoders (VAE)** and **Generative Adversarial Networks (GAN)**.