

# AKIHISA WATANABE

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## SUMMARY

I am currently a 3rd-year undergraduate student in Simo-Serra Lab. of Waseda University, advised by Prof. Edger Simo-Serra. My research interest is in 3D human motion generation, focused on generating a wide range of movements, from daily activities to complex, sport-specific and specialized movements. My vision is to leverage this technology to devise new techniques for fields such as sports, facilitating new ways of learning and advancing while reducing the risks associated with physical practice.

During the internship, I am interested in pursuing research at the intersection of motion generation and natural language processing. I would like to expand on methods such as those employed by [Eureka](#) and [PADL](#), which convert textual descriptions into animations. In particular, I am intrigued by the possibility of equipping models with the ability for self-narration, where agents can describe their own actions in natural language. By integrating with LLMs, I expect these models to attain the capability to perform complex tasks, such as replicating sports movements, more realistically.

## SKILLS

**Languages:** Python, C++, Swift.

**Frameworks:** PyTorch, Gym (OpenAI), Isaacgym.

## PUBLICATIONS AND PROJECTS

- Paper **Open-Domain Dialogue Quality Evaluation: Deriving Nugget-level Scores from Turn-level Scores**  
Rikiya Takehi, **Akihisa Watanabe**, Tetsuya Sakai, SIGIR-AP '23, 2023.  
[arXiv:2310.00410](#)
- Paper (Japanese) **Time's Up for Replay Attacks: Countermeasures Against Replay Attacks Considering the Temporal Changes of Biometrics**  
**Watanabe.A**, Matsumoto.K, Mori.T, Iijima.R, Computer Security Symposium(CSS2023), 2023.  
<https://drive.google.com/file/d/1lZhm1RihxNjFbcCrCdsb1ga8wGfV0KV0/view>
- Paper (Japanese) **sEMG-based Gesture Authentication for Smartwatch**  
**Watanabe.A**, Iijima.R, Mori.T, IEICE Technical Committee on Information and Communication System Security(ICSS2023), 2023.  
<https://drive.google.com/file/d/15GXWDjpoN2YoShbSvD9irV5tfG9e6QPu/view>
- Article **Reinterpretation of 'Eternal Sunshine of the Spotless Net: Selective Forgetting in Deep Networks'**  
**Akihisa Watanabe**, 2023.  
[https://drive.google.com/file/d/1Gcgvb7YKZ9V0n-tH80m9gY\\_rT0JQ1Sve/view](https://drive.google.com/file/d/1Gcgvb7YKZ9V0n-tH80m9gY_rT0JQ1Sve/view)
- Project **Implementation of the Basic Policy Gradients Algorithm for Character Animation (UC Berkley CS 285)**  
**Akihisa Watanabe**, 2023.  
[https://github.com/Akihisa-Watanabe/berkeleydeeprlcourse\\_solutions](https://github.com/Akihisa-Watanabe/berkeleydeeprlcourse_solutions)

## EDUCATION

- 4/2021 - **Waseda University** Tokyo, Japan  
Major : Applied Mechanics and Aerospace Engineering.  
Minor : Computer Science.
- 4/2018 - 3/2021 **Waseda University Honjo Senior High School** Saitama, Japan

## EXPERIENCE

- 10/2021 - 3/2023 **Adacotech Inc.** Tokyo, Japan  
Primarily engaged in the implementation of POC projects as an ML Engineer (Anomaly Detection).  
Python / OpenCV / Pytorch

## LANGUAGES

English - C1, Japanese - native