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## EDUCATION

**The University of Tokyo** **Tokyo Japan**
Master degree of Interdisciplinary Information Studies April 2019 - expected March 2021
Research theme : Learning based whole-body control of musculoskeletal humanoids which has impact absorption mechanism

**The University of Tokyo** **Tokyo Japan**
Bachelor of Enginering April 2013 - March 2019
Research theme of graduate thesis : A multi-scale model for population burst of neurons on microelectrode array

## WORK EXPERIENCE

**JSK Robotics Laboratory,** **Tokyo Japan**
Technical Assistant November 2019 - present
Doing research on driving cars by musculoskeletal humanoid Musashi. This is the joint research with the Toyota Motor Corporation. I am designing the musculoskeletal legs and mainly its controller that can achieve motion with environmental contact. One of the main results is pedal switching motion by its single leg like human beings. Our musculoskeletal legs can maintain the sufficient moment arm in wide range of motion by its planar interskeletal structures. These human mimetic structures enabled high torque performance in a wide range of motion.

**Preferred Networks Inc,** **Tokyo Japan**
Research Intern, Part-time Engineer August 2017 - March 2019
- Replicated the result of recent papers in the field of deep reinforcement learning. Through this project, experienced re-implementation of recent deep reinforcement learning algorithms and acquired practical knowledge of deep reinforcement learning. (Research Intern) (summary of result : https://research.preferred.jp/2018/06/replication-of-emergence-of-locomotion-behaviors-in-rich-environment/)
- Worked on the Sim-to-Real Problem (which tries to narrowing the gap between real robots and physics simulators). Through this project, acquired practical experiences of executing policies trained in physics simulator on real robots. (Part-time Engineer)

**Sole Proprietor (Amazon Seller),** **Tokyo Japan**
Part-time job, Software Engineer February 2017 - July 2017
- Completed prototype Windows application which predicts changings of prices of merchandises based on information provided to Amazon seller by Amazon. Through this project, acquired basic knowledge and experience of developing software which handles big data and machine learning.

**Hanamaru Lab Inc,** **Tokyo Japan**
Part-time job, Problem Designer and 3D Modeling April 2015 - July 2017

- Problem design of mathematical thinking education for primary students (some of my work are adopted as teaching materials in the form of book: https://www.amazon.co.jp/dp/4794222238/ref=cm_sw_r_tw_dp_U_x_Ii3dDbVV73BX9)
- 3D modeling of animal characters for Think!Think! (https://think2app.hanamarulab.com/).

## SKILLS

**Programming Language** - C++, C, Python, Lisp(EusLisp), C#, SQL
**Framework** - ROS, Chainer, Chainerrl, Tensorflow, Pytorch, UWP, Flask, Flutter
**Language** - Japanese(native), English(TOEIC 910), Chinese(Beginner)

## PUBLICATION

- Domestic Conference(No Reviewed)
    - 微小電極アレイ基板上の神経細胞集団の同期バーストを評価するマルチスケールモデル, 西浦 学, 赤尾旭彦, 榛葉健太, 小谷潔, 神保泰彦, 電気学会C部門研究会, 医用生体工学研究会, 2019,東京大学先端科学技術センター
    - 筋骨格ヒューマノイドにおける環境物体に応じた適応的剛性レンジ選択とその可変剛性制御戦略の獲得, 西浦 学，河原塚 健人，鬼塚 盛宇，浅野 悠紀，岡田 慧，稲葉 雅幸, 日本ロボット学会，2019，早稲田大学