Hiroyasu Akada

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EDUCATION

Keio University Kanagawa, Japan
Master of Science in Engineering (with a research thesis option) *April 2018 - Present*
Cumulative GPA: 4.00/4.00 (US-scale accredited by World Education Services)

University of California, Berkeley, Haas School of Business Berkeley, CA, USA
Berkeley Haas Global Access Program, Entrepreneurship *August 2018 - May 2019*
Cumulative GPA: 3.49/4.00

Keio University Kanagawa, Japan
Bachelor of Engineering (with a research thesis option) *April 2014 - March 2018*
Cumulative GPA: 3.68/4.00 (US-scale accredited by World Education Services)

CURRENT RESEARCH INTEREST

Computer Vision, Deep Learning, Generative Adversarial Networks, Style Transfer, Domain Adaptation, 3D Reconstruction, Motion Capture

RESEARCH EXPERIENCE

King Abdullah University of Science and Technology Thuwal, Saudi Arabia
Research Intern (Supervisor: Prof. Peter Wonka) *September 2020 - Present*

- Currently working on GANs and contrastive learning for domain adaptation in vision tasks
- Developed a deep-learning-based unsupervised domain adaptation method for depth estimation
- Integrated GANs, Gaussian Process, and a depth estimator to maximize alignment between source and target domains
- One paper is under review at ICCV 2021 as a first author

Keio University Kanagawa, Japan
Graduate Research Assistant (Supervisor: Prof. Masaki Takahashi) *April 2018 - Present*

- Currently developing a human motion measurement system with Kinect sensors for dynamic situations by incorporating machine learning and 3D correspondence matching techniques
- Developed a deep-learning-based framework (GANs) for the task of object removal in images
- Developed object recognition and image editing algorithms to create a dataset of 70,000+ images using an autonomous robot operated on ROS
- Self-directed the entire project from choosing the topic, planning, coding, implementing, and evaluating
- Published a paper as a first author in robot vision area

Keio University Kanagawa, Japan
Undergraduate Research Assistant (Supervisor: Prof. Haruki Sato) *April 2017 - March 2018*
Bachelor Research Thesis: "Research on Securing Sustainability of Advanced Energy Use in Communities with Independent Power Supply"

- Developed a Monte-Carlo-algorithms-based simulation model of energy-efficient community with stochastic human activities
- Cooperated on writing a paper with several peers as a second author

PUBLICATIONS

1. *International Conference on Computer Vision, 2021 (Under Review)*
2. *__Hiroyasu Akada__, Masaki Takahashi. "Dynamic Object Removal from Unpaired Images for Autonomous Agricultural Robots". *International Conference on Intelligent Autonomous Systems. (Accepted in March 2021)*
3. *Kohei Terashima, **Hiroyasu Akada**, Yuriko Kobayashi, Haruki Sato, Toshiharu Ikaga. "An Example of Cluster Energy Management System in Aging Society", *Proceedings of Grand Renewable Energy, P310-313, 2018*

PRESENTATIONS

1. **International Conference on Intelligent Autonomous System**
   Singapore, June 2021 (Expected)
   Poster presentation: "Dynamic Object Removal from Unpaired Images for Autonomous Agricultural Robots"
2. **20th Annual Keio Science and Technology Exhibition - Keio Techno-Mall 2019**
   Tokyo, Japan, December 2019
   Poster presentation: "Demonstration of Smart Farming System Using Agricultural Robot Supporting Farmers"
3. **Grand Renewable Energy 2018 International Conference and Exhibition (GRE2018)**
   Yokohama, Japan, June 2018
   Co-author: "An Example of Cluster Energy Management System in Aging Society"

INDEPENDENT PROJECTS

Team Wolve'Z CanSat Project

Hardware Developer & Assistant Software Developer

- Awarded 3rd place for the mission competition at a nationwide CanSat competition among 25 teams
- Built a whole body of small-sized mock earth satellite using several tools including 3D CAD, 3D printer, drilling machines, NC milling machines and laser process machines
- Developed satellite's sensors for a self-localization task using Arduino and C++
- Held a Water Rocket experimental class in collaboration with JAXA (Japan Aerospace Exploration Agency) for 100+ elementary students around the Keio University campus

WORK EXPERIENCE

Tencent America Palo Alto, CA, USA

Market Research Intern in *Business Development Department* *July 2019 - August 2019*

- Investigated the international game market and key technologies, including VR/AR
- Made a presentation to my team about the future strategy of the company based on my market analysis

Waseda Academy Tokyo, Japan

Assistant Teacher *April 2014 - July 2018*

- Taught high school students in mathematics including calculus, linear algebra, differential equations, etc.
- Supervised 80+ students for their study and scheduling as a mentor

COMMUNITY SERVICE

International Student Volunteer Group RUKE Tokyo, Japan / Kathmandu, Nepal

Public Relation Manager *April 2014 - July 2018*

- Volunteer work for children in Nepal for over 400 hours
- Hold study tours to Nepal, expanded local schools and taught children in collaboration with the International Support Association of School Construction (NPO)
- Managed street fundraising, crowdfunding, event donation for school expansion ($20,000+)
- Offered online classes to children after the collapse of the schools due to the Nepal Earthquake of 2015

SCHOLARSHIPS

Japan Student Services Organization Scholarship *April 2020 - Present*

- Scholarship based on academic records in the first year of the graduate degree

Japan Student Services Organization Scholarship *April 2018 - March 2020*

- Scholarship based on academic records in undergraduate years

TOBITATE scholarship *August 2018 - August 2019*

- Scholarship for studying abroad based on academic records and extracurricular activities

EXTRACURRICULAR ACTIVITIES

Alumni Association of Keio University "Mitakai" in San Francisco San Francisco, CA, USA
Executive Committee Member *April 2019 - March 2020*

- The youngest board member in the group of 200+ alumni
- Organized activities including general assembly, business incubation, etc.

SKILL & CERTIFICATION

Language: Japanese (Native), English (Fluent - IELTS: 7.5 / GRE: V 155, Q 170, AW 4.0), Chinese (Conversational - HSK rank 4: 270/300)
Programming Languages: Python (Advanced) / C++, Java (Intermediate) / MATLAB (Basic)
Working knowledge: Windows, Linux, CUDA, PyTorch, Keras, Tensorflow, OpenCV, OpenGL, Docker, Git, ROS, LATEX