

# Ayae Ide

+1 (582) 023 9697 | axi5165@psu.edu |

## EDUCATION

---

- Pennsylvania State University** Aug 2023 – Present  
*M.Sc in Information Science and Technology (Advisor: Prof. Tanusree Sharma)* University Park, PA
- Thesis (expected): Provenance in the AI Era: Human-Centered Design of Personhood and Content Credentials
- Tokyo Institute of Technology** Apr 2016 – Mar 2018  
*M.Eng. in Computer Science (Advisor: Prof. Yoichi Motomura, Prof. Takao Terano)* Tokyo, Japan
- Thesis: Policy Decision Support System in Aging Society Based on Probabilistic Latent Spatial Semantic Structure Modeling
- Sophia University** Apr 2012 – Mar 2016  
*B.S. in Physics (Advisor: Prof. Tomi Ohtsuki)* Tokyo, Japan
- Thesis: Optimization Algorithm for Exploring Quantum Spin Glass Ground State

## RESEARCH EXPERIENCE

---

- Blockchain Research Group, Max Planck Institute** Jul 2025 – Sep 2025  
*Visiting Scholar (Advisor: Dr. Johnatan Messias)* Kaiserslautern, Germany
- Research Topic: Fairness in Token Delegation, User Behavior Analysis in DAOs
- Governance, Privacy and Security Research Lab, Penn State** Aug 2023 – Present  
*Research Assistant / Teaching Assistant (Advisor: Prof. Tanusree Sharma)* University Park, PA
- Research Topic: Usable Security and Privacy, Human-Computer Interaction, Decentralized Systems
- Terano Research Group at Tokyo Institute of Technology** Apr 2016 – Mar 2018  
*Research Assistant (Advisor: Prof. Takao Terano)* Tokyo, Japan
- Research Topic: Computational Social Science, Intelligent Systems, Machine Learning
- National Institute of Advanced Industrial Science and Technology** Jan 2016 – Mar 2018  
*Research Assistant (Advisor: Prof. Yoichi Motomura)* Tokyo, Japan
- Research Topic: Probabilistic Graphical Models, Human Modeling, Statistical Learning Theory
- Condensed Matter Theory Group at Sophia University** Apr 2015 – Mar 2016  
*Research Assistant (Advisor: Prof. Tomi Ohtsuki)* Tokyo, Japan
- Research Topic: Condensed Matter Physics, Quantum Mechanics, Optimization Algorithm

## INDUSTRY EXPERIENCE

---

- Meta Platforms, Inc. (Facebook, Inc.)** Feb 2020 – Dec 2022  
*Marketing Science Partner* Tokyo, Japan
- Engaged in ads measurement of advertisers via measurement design and statistical analysis.
  - Conducted ad effectiveness studies to understand the impact of different marketing strategies.
  - Contributed an open-source project of automated marketing mix modeling.
- LINE Corporation** Aug 2018 – Feb 2020  
*Data Scientist* Tokyo, Japan
- Engaged in interface design based on insights from analysis of experimental data and predictive modeling.
  - Developed automated data pipelines computing user engagement metrics in a recommendation system project.
  - Developed tailored dashboards from client logs to monitor user behaviors and retrieve product needs.
- Mitsubishi Research Institute** Feb 2017 – Jul 2018  
*Student Research Assistant* Tokyo, Japan
- Assisted in research projects for policy proposals and publications on social policy and technology.
- PLAID, Inc.** Oct 2015 – Dec 2015  
*Student Intern* Tokyo, Japan
- Extracted insights across large-scale dataset in an infographic project.

## HONORS AND AWARDS

---

### Research Fellowships

2025 Summer Research Fellowship, Max Planck Institute for Software Systems

### Academic Honors and Awards

2018 Repayment Exemption of Graduate Student Loan \$20,000 for Excellent Achievement

2018 AAAI Spring Symposium 2018 Special Award

2017 Student Incentive Award Issued by The Japanese Society for Artificial Intelligence

## PUBLICATIONS

---

1. Johnnatan Messias and **Ayae Ide**. Fairness in Token Delegation: Mitigating Voting Power Concentration in DAOs. *arXiv preprint arXiv:2510.05830*, 2025
2. Tanusree Sharma, Yu-Yun Tseng, Lotus Zhang, **Ayae Ide**, Kelly Avery Mack, Leah Findlater, Danna Gurari, and Yang Wang. “Before, I Asked My Mom, Now I Ask ChatGPT”: Visual Privacy Management with Generative AI for Blind and Low-Vision People. In *Proceedings of the 27th International ACM SIGACCESS Conference on Computers and Accessibility*, pages 1–14, 2025
3. **Ayae Ide**, Tory Park, Jaron Mink, and Tanusree Sharma. Signals of Provenance: Practices & Challenges of Navigating Indicators in AI-Generated Media for Sighted and Blind Individuals. *arXiv preprint arXiv:2505.16057*, 2025
4. **Ayae Ide** and Tanusree Sharma. Personhood Credentials: Human-Centered Design Recommendation Balancing Security, Usability, and Trust. *arXiv preprint arXiv:2502.16375*, 2025
5. **Ayae Ide**, Yoichi Motomura, and Takao Terano. Policy Decision Support System in Aging Society Based on Probabilistic Latent Spatial Semantic Structure Modeling. In *Technical Reports of 2018 AAAI Spring Symposium Series*, pages 223–229. AAAI, 2018 (**Special Award**)
6. **Ayae Ide**, Kazuya Yamashita, Yoichi Motomura, and Takao Terano. Analyzing Regional Characteristics of Living Activities of Elderly People from Large Survey Data with Probabilistic Latent Spatial Semantic Structure Modeling. In *Proceedings of 2017 IEEE International Conference on Big Data (Big Data)*, pages 3071–3077. IEEE, 2017
7. **Ayae Ide**, Tatsuro Kawamoto, Kazuya Yamashita, and Yoichi Motomura. Probabilistic Latent Spatial Semantic Analysis by Anonymization using Microaggregation. In *The 31st Annual Conference of the Japanese Society for Artificial Intelligence*, pages 1K22–1K22. JSAI, 2017 (**Student Incentive Award**)
8. **Ayae Ide**, Rito Takeuchi, and Yoichi Motomura. Probabilistic Latent Semantic Structure Modeling for Analyzing Survey Data. In *Proceedings of the 44th Annual Meeting of The Behaviormetric Society*. BMS, 2016

## TEACHING EXPERIENCE

---

### Teaching Assistant

Pennsylvania State University

Fall 2024

University Park, PA

- IST 520: Foundations of Human-Centered Design (Dr. Yubo Kou)
- IST 590: PhD Colloquium (Dr. Sarah Rajtmajer)