**Yoshiyasu Kawamura**

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**EDUCATION**

**Tokyo Online University Tokyo, Japan**

***Bachelor of Information and Management (Expected) April 2021–Present***

***(Expected to graduate in March 2023)***

* GPA: 3.99 (tentative, WES Authorized)
* Earned a wide range of data science, information, and programming credits and acquired skills in programming languages such as Python, R, SQL, Java, C, HTML, CSS, JavaScript, etc.
* Researched existing Python deep learning libraries (Chainer, Pytorch, TensorFlow, etc.); analyzed differences between them, and used this knowledge to develop a simple, highly readable library by myself.
* Participated in a research seminar (held by Associate Professor Joji Maeno) and developed a reinforcement learning program with deep learning for the rock-paper-scissors game to approach the optimal strategy derived from an economic-theoretical method.

**Certificates**

*Mathematics for Machine Learning: Multivariate Calculus* ***December 2022***

*(Offered by Imperial College London through Coursera)*

* Reviewed the multivariate calculus fundamental knowledge including chain rule, Taylor series, Jacobian, Hessian, Newton’s Method, and Lagrange multipliers method.
* Implemented the optimization of a cost function using Gradient Descent with Python.

*Mathematics for Machine Learning: Linear Algebra* ***December 2022***

*(Offered by Imperial College London through Coursera)*

* Relearned vectors and matrices (inverses matrix, determinants, diagonalization, Einstein Summation Convention), and studied how to apply reflection and construct a basis vector set.

*Statistics and R (offered by Harvard University through edX)* ***October 2022***

* Learned statistical inference in order to understand and compute p-values and confidence intervals, all while analyzing data with R.

*Machine Learning (offered by Stanford University through Coursera)* ***January 2021***

* Built machine learning models in Python using NumPy & scikit-learn.
* Built & trained supervised machine learning models for prediction & binary classification tasks, including linear regression & logistic regression.

**Keio University Tokyo, Japan**

***Bachelor of Arts in Economics,***

*Department of Economics* ***April 2014 - March 2018***

* GPA: 3.09 (WES Authorized)
* Acquired credits in Statistics, Linear Algebra, Calculus, Probability etc.
* Participated in a seminar (held by Professor Ippei Fujiwara).
* Majored in Macroeconomics.
* Research paper: “Analysis of the relationship between economic trends and the number of professional license applicants” written in R.

**PROFESSIONAL EXPERIENCE**

**Ministry of Agriculture, Forestry and Fisheries (MAFF) Tokyo，Japan**

***Chief (Information Planning)***

*Digital Strategy Division, Minister’s Secretariat*  ***September 2022 - Present***

* Lead 60+ staff as chief of the planning unit under direct control of the Deputy Director General.
* Consider the direction of over 200 IT system buildings and digital transformation within the government and MAFF and obtain a budget.
* Review optimal methods for digital transformation in Japan, the central government, and MAFF and incorporate them into Japan’s digital strategy encompassed in “Priority Plans for the Realization of a Digital Society” released December 2021 organized by the Digital Agency.
* Promote the online implementation of over 3,000 administrative procedures related to MAFF’s policies, establishing systems that enables us to analyze the data obtained.
* Migrated government-wide business infrastructure systems called “Government Solution Service” which is basis for all work in the Japanese Government such as contacts, documentation, and decision-making and managed cloud system changes and distribution of over 50,000 computer terminals (September to October in 2022).

***Chief (Legal Affairs)***

*Administration Division, Statistics Department, Minister's Secretariat* ***April 2020 - September 2022***

* Established regulations for sample size and methods of estimating results for more than 30 sets of official statistics, for example, the Census of Agriculture and Forestry, and Industry Linkage Structure Survey based on knowledge about probability distributions and forecasting accuracy.
* Held ten briefing sessions for a total of more than 500 people in the whole Ministry including Director-Generals and promoted the use of Machine Learning in MAFF.
* Analyzed Japanese future agricultural population and provided the evidence to obtain budget for the launch of a 15-billion-yen “Business Succession and Development Support Program” in April 2021 to support new and successional farmers starting businesses.
* Resolved security issues with useful software such as Slack, Teams, Docker, etc. and deploy usage throughout the ministry.

***Staff,*** *General Affairs and Direct Payment for Land-Extensive Farming Office,*

*Crop Production Bureau* ***April 2019 - March 2020***

* Predicted the impact of the Japan-EU EPA, Japan-US trade agreements and TPP11 on the domestic rice, wheat, sugar and other crop industries, and consider and implement necessary support measures for domestic farmers and traders.
* The estimated impact was released as “Impact of the EU-Japan EPA on Agricultural, Forestry and Fishery Products by Commodity” and “Impact of the Japan-U.S. Trade Agreement and TPP11 on the Production Value of Agricultural, Forestry, and Fishery by Commodity” at Ministry’s Website in October 2019.
* Prepared a forecast for the portion of Japanese food export targets that related to grains and published it as “Action Plan for Facilitating the Export of Agricultural, Forestry and Fishery Products and Food” in April 2020.
* Under direction from the Director General, held a total of six seminars to improve statistical literacy within the Bureau, presented in front of a total of more than 300 people.

***Staff,*** *Crop Production Policy Planning Division,*

*Crop Production Bureau* ***April 2018 - March 2019***

* Obtained a budget of a 300-billion-yen policy to convert domestic staple rice to other uses (for feed and processing), and managed domestic rice supply and demand.
* Analyzed the relationship between rice prices and demand (price elasticity of demand) using linear regression, difference-in-differences analysis, etc., and made a presentation in August 2018 to a professor at the University of Tokyo, an external member of the Food, Agriculture and Rural Policy Council.
* As one of the first people to introduce Python within the Ministry, held a briefing session for more than 100 employees to share the safety and convenience of Python.

**ADDITIONAL INFORMATION**

**Awards:**

* Two-year overseas graduate study abroad scholarship: Japanese Government Long-Term Overseas Fellow selected based on English language ability and outstanding career performance in policy-making (2022).
* 1,300 points (Light Blue rank) in AtCoder, a Japanese Competitive Programming service (Feb/2022).
* Passed OSS-DB Exam Silver (Oct/2021), Applied Information Technology Engineer Examination (Apr/2021), Japan Statistical Society Certificate Grade Pre-1 (Feb/2021), Deep Learning for GENERAL: JDLA (Japan Deep Learning Association) Certificate (Jun/2020).
* Won first prize at the Statistical Analysis Competition　with over 100 participants conducted by the Ministry’s Statistics Department (Jul/2020).
* Passed Japanese Government Officer Career-Track Recruitment Exam (Economics) within the top 5 percent (Oct/2017).

**Leadership Activities at University:**

* From October 2015 to September 2016 as a leader in the educational volunteer club “Society for Volunteer and Study of Children’s Culture”, with over 150 members, managed the budget and led the activity to teach disadvantaged children in orphanages who do not afford to go to cram schools to study every week and organized volunteer events, for several hundred children.

**Travel:**

* From April 2016 to March 2018 traveled to over 30 countries, including the USA, Canada, Mexico, Brazil, Chile, Peru, South Korea, China, Taiwan, Australia, Philippines, Brunei, Timor-Leste, Indonesia, Singapore, Malaysia, Vietnam, Cambodia, Thailand, Laos, Myanmar, India, Turkey, UAE, Qatar, Tanzania, Kenya, Uganda, Zambia, South Africa, DRC.

**Sport (Fencing):**

* Coach at Rikkyo Niiza High School and the team won the first prize at National High School Athletic Meet Fencing Competition in October 2021.
* Selected for the U-17 represent of Japan and participated in Cadet and Junior World Fencing Championships and some other international competitions in 2013.
* Won the first prize at National Junior High School Fencing Championship twice (July 2011 and 2012).