

TOMOKI OKUNO

EDUCATION

University of California, Los Angeles **Los Angeles, CA**
PhD Biostatistics, Department of Biostatistics, UCLA Fielding School of Public Health **2023 – Expected 2027**

University of California, Los Angeles **Los Angeles, CA**
MS Biostatistics, Department of Biostatistics, UCLA Fielding School of Public Health **2021 – 2023**

- GPA: 4.0/4.0
- Master's thesis: "Association of both short-term and long-term glycemic variability with the development of microalbuminuria in the ACCORD trial"

Kyoto University **Kyoto, Japan**
Master of Informatics, Department of Applied Analysis and Complex Dynamical Systems **2011 – 2013**

- GPA: 3.2/4.0
- Master's thesis: "Simulation of the Structural Color of Morpho Butterflies with Periodic Fast Multipole Methods"

Kyoto University **Kyoto, Japan**
Bachelor of Engineering, Faculty of Engineering **2007 – 2011**

- GPA: 3.4/4.0
- Thesis: "Shape Sensitivity Analysis with FMM in the Periodic Problems for Maxwell's Equation"

AWARDS AND HONORS

- **Departmental Award** for full-funding for graduate studies at UCLA for 2023–2026
- **Wilshire Fellowship** in Geriatric Medicine at UCLA for 2022–2023 with a grant of \$5,500

PUBLICATIONS

- **T Okuno**, A Vansomphone, E Zhang, H Zhou, J Koska, P Reaven, JJ Zhou; Association of both short-term and long-term glycemic variability with the development of microalbuminuria in the ACCORD trial. *Diabetes* 2023; db230374.

RESEARCH EXPERIENCE

Department of Biostatistics at UCLA **Los Angeles, CA**
Graduate Student Researcher, Advisor: Dr. Jin J Zhou and Dr. Hua Zhou **March 2022 – Present**

- Construct the joint model for longitudinal and time-to-event process, incorporating within-subject-variation in biomarkers and using method of moment for efficient calculation in Julia

- Identified real-world, long-term (temporal, seasonal, monthly, and weekly) glycemic trajectories in type 1 and type 2 diabetes from wearable device data
- Examined the relationship and consistency between data extracted from the electronic health record in the US Veterans Affairs and continuous glucose monitoring data from Dexcom
- Investigated the association of both short-term and long-term glycemic variability with the development of microalbuminuria for type 2 diabetes patients using the Cox model
- Conducted differential expression analysis with patients' genetic data to predict dysfunction after lung transplantation using Random Forest with time-varying covariates

TEACHING EXPERIENCE

Department of Biostatistics at UCLA

Los Angeles, CA

Teaching Assistant

- Biostat 203B: Introduction to Data Management and Statistical Computing (2022 Winter, 2023 Winter)
- Biostat 216: Mathematical Methods for Biostatistics (2023 Fall)

PROFESSIONAL EXPERIENCE

Medley Inc. (TSE-Mothers)

Tokyo, Japan

Business Development and Promotion Specialist, Business Enablement Group

July 2019 – August 2021

- Acquired new profit sources through collaboration with outside companies; collaborate internally to improve company processes and procedures
- Conducted research into medical products for clinics; spearheaded sales partnerships with medical product manufacturers for cross-selling initiative
- Launched inter-departmental projects for improving operations; facilitated clarification of departmental objectives and challenges to promote greater efficiency and risk reduction
- Led a 10-member team in designing an integrated business process including sales, contracting, billing, operational customer support and sales management techniques for a web-based medical questionnaire service (a relatively uncommon service); resulted in an acquisition of over 200 users in six months, a significant improvement since the service was launched in January 2018
- Actively engaging in the creation and development of a scheme and the conclusion of a contract to introduce telemedicine in more remote areas; working closely with the government of Okinawa in a demonstrative experiment providing free services to Yonaguni Island with a population of 1700 and one medical institution

Freelance

Tokyo, Japan

Consultant

May 2018 – June 2019

- Secured new outsourcing contracts with an e-commerce company and a tax accounting firm
- Managed an e-commerce database of 50,000 stores and helped to facilitate a large-scale system migration; determined adjusted costs for operating the new system
- Designed an asset management simulator to optimize asset allocation based on client information; helped to significantly reduce company operation costs and increase sales efficiency by automating data input, analysis, and output

Japan Football Association
Japan National Football Team Marketer

Tokyo, Japan
May 2016 – April 2018

- Developed a marketing strategy for the JFA; coordinated with ad agencies and JFA sponsors
- Achieved a greater than 10% YOY increase in the fan base through a marketing program targeting fan engagement; offered new experience-based content appealing to fans' empathy and attachment to the Japan National Team
- Segmented fans through cluster analysis (k-means method) to gain a deeper understanding of their needs and wants; drove strategic approaches that set clear targets and objectives to promote their experiences
- Planned and executed programming and marketing to enhance fan engagement with the 2018 FIFA World Cup, securing ten sponsors and twice the budget compared to the previous World Cup

Accenture Japan Ltd.
Strategy Consultant

Tokyo, Japan
July 2013 – April 2016

- Engaged in consulting projects for more than ten organizations, including government offices and major retailers
- Analyzed work volume and expenses for operations conducted by municipalities nationwide for the Ministry of Health, Labour and Welfare; secured a 20% increase in the baseline compensation for these operations
- Designed a simulator that predicts customer unit price and sales volume; analyzed data on store locations of a major retailer using multiple regression analysis
- Studied design of a new visa category for the Ministry of Foreign Affairs to promote longer stays by wealthy visitors to Japan; analyzed similar systems in Australia and New Zealand
- Assisted a major retailer in doubling their digital promotions budget by designing an improved model for estimating marketing ROI

SKILLS

- **Statistical Skills:** Survival analysis, Longitudinal analysis, Random Forest, Multivariate linear models, Graphical models, Bayesian models
- **Computing Skills:** R, Julia, SAS, STATA, Google BigQuery, R Shiny, R Markdown, LaTeX
- **Ability:** Problem-solving, Critical thinking, Project management, Accuracy in work