# Chia-Chun Yang

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## EDUCATION

**Ph.D. in Operations, Business Analytics, and Information Systems**          **August 2020 – Present**
University of Cincinnati, Cincinnati, OH

**Master of Science in Information Systems**          **August 2017**
Iowa State University, Ames, IA
Minor: Statistics

**Master of Science in Global Logistics**          **May 2015**
Arizona State University, Tempe, AZ

**Bachelor of Science in Physics**          **June 2013**
National Chung Cheng University, Taiwan

## AWARDS & ACHIEVEMENTS

**FINALIST - JUNIOR SCHOLAR PAPER COMPETITION**          **May 2023**
Issuer:
POMS College of Behavior in Operations Management
Description:
Paper title: "Effect of Shift Structure on Service-Worker Fatigue: Evidence from Emergency Department Caregivers"

**HERO AWARD**          **August 2019**
Issuer:
General Dynamics Information Technology
Description:
Chia-Chun has invested a number of hours and many long days over the past few months to ensure the timely completion and quality of the 2017 Unified Post-Acute Care Public Use File, a high priority data product for the Policy and Data Analytics Group in the Center for Medicare & Medicaid Services. This project had limited specifications and several measures, and Chia-Chun worked persistently with customer and his team to ensure that each component of the data product met customer needs

**NEW SAS PROFESSIONAL AWARD**          **May 2019**
Issuer:
SAS Global Forum 2019
Description:
A limited number of awards are being awarded to SAS professionals who have fewer than five years of professional experience using SAS. Recognition of a SAS professional who contributes to excellent data analytics profession in the industry

**EMPLOYEE RECOGNITION AWARD – DISTINGUISHED PERFORMANCE**          **April 2018**
Issuer:
General Dynamics Information Technology
Description:
Chia-Chun has shown dedication and innovation in his work on the Comprehensive ESRD Care RMADA contact and the Chronic Condition Data Warehouse (CCW) contract work for the Policy Data and Analysis CMS team. Chia-Chun has exceeded expectations and significantly

contributed to the quality and efficiency of projects by introducing parallel processing and automation to existing processes

## RESEARCH APPOINTMENT

**Doctoral Researcher**                                                                    **August 2021 – August 2023**

Joint appointment: Department of Emergency Medicine; Department of Operations, Business Analytics, and Information Systems (OBAIS) – University of Cincinnati,
Advisors: Greg Fermann, MD (Emergency Medicine) & Craig Froehle, PhD (OBAIS)

## RESEARCH

**Research Interest**

Healthcare and Behavioral Operations Management
The Role of Technology in Improving Operational Efficiency

**Dissertation**

"Designing Technology-Generated Customer Service Operations"

- *Various technologies (e.g., self-checkout systems, AI-powered service agents) are increasingly implemented in customer-service roles across many industries, such as financial, retail, and healthcare. However, customers' decisions whether or not to use these technologies, and how much these technologies contribute to the service experience are not well known. A better understanding of what factors motivate people's decisions to use customer-service technologies can enable operations management to improve service process designs, increase efficiency, and enhance the service experience. The guiding research question for this dissertation is how do task, environment, and system design affect customers' choices of and experience with self-service channels? This research will use a combination of experimental and survey methods over multiple studies to gain insight into this question.*

**Working Paper**

**Chia-Chun Yang**, Craig Froehle, Elizabeth Leenellett, "Effect of Shift Structure on Service-Worker Fatigue: Evidence from Emergency Department Caregivers," *Target: JOM*

- *Finalist, 2023 College of Behavioral OM Junior Scholar Paper Competition*

**Ongoing Research**

**Chia-Chun Yang**, Yinghao Zhang, Craig Froehle, "Effect of Task and Temporal Attributes on Customers' Decisions to Use Self-Service Technologies"
**Chia-Chun Yang**, Craig Froehle, Yinghao Zhang, "Influence of Task and Anthropomorphism on Customers' Perceived Failure Risk with an Artificial Intelligence (AI) Service Agent"

## ACADEMIC SPEAKING

**Upcoming Conference Presentations**
INFORMS (Seattle, WA)                                                                          October 2024
*"Impact of Shift Structure on Fatigue among Emergency Department Service Workers"*
INFORMS (Seattle, WA)                                                                          October 2024
*"Effect of Task and Temporal Attributes on Customers' Decisions to Use Self-Service Technologies"*

**Invited Talks and Presentations**

17th annual Behavioral Operations Conference – Young Scholar's Workshop (Boulder, CO)          June 2024
   *"Effects of Task, Time, and Anthropomorphism on Customers' Decisions to Use AI-powered Service Agent"*

34th Annual POMS Conference (Minneapolis, MN)          April 2024
   *"Effect of Task and Environmental Factors on Customers' Decisions in Adopting Self-Service Technologies"*

34th Annual POMS Conference (Minneapolis, MN)          April 2024
   *"The Role of Artificial Intelligence (AI) Technologies in Service Process Design"*

34th Annual POMS Conference (Minneapolis, MN)          April 2024
   *"Designing AI-Enabled Customer Service Operations: A Behavioral Perspective"*

OBAIS Brown Bag (Cincinnati, OH)          January 2024
   *"Effect of Shift Structure on Service-Worker Fatigue: Evidence from Emergency Department Caregivers"*

INFORMS (Phoenix, AZ)          October 2023
   *"The Role of Artificial Intelligence (AI) Technologies in Service Process Design"*

INFORMS (Phoenix, AZ)          October 2023
   *"Scheduling Effects on Service-Worker Fatigue: Evidence from Emergency Department Physicians"*

INFORMS Healthcare Conference (Toronto, ON Canada)          July 2023
   *"Effect of Shift Structure on Service-Worker Fatigue: Evidence from Emergency Department Caregivers"*

16th annual Behavioral Operations Conference – Young Scholar's Workshop (Baltimore, MD)     June 20th, 2023
   *"Effect of Task and Environmental Factors on Customers' Decisions in Adopting Self-Service Technologies"*

33rd Annual POMS Conference (Orlando, FL)          May 2023
   *"Effect of Shift Structure on Service-Worker Fatigue: Evidence from Emergency Department Caregivers"*

POMS College of Behavior in OM Mini-Conference (Orlando, FL)          2:00 pm EDT, May 21st, 2023
   *"Effect of Shift Structure on Service-Worker Fatigue: Evidence from Emergency Department Caregivers"*

Emergency Medicine Research Faculty Meeting, University of Cincinnati (Cincinnati, OH)          March 2023
   *"Scheduling And Fatigue Effects Research (SAFER) Project"*

32nd Annual POMS Conference (Virtual)          April 2022
   *"The effect of shift structure on fatigue of frontline healthcare workers"*

Iowa SAS User Group Conference (Johnston, IA)          August 2018
   *"Working Effectively with SAS GRID"*


## PROFESSIONAL SERVICE

**34th Annual POMS Conference: Session of Behavioral Influences in Healthcare Operations          April 2024**
   Session Co-Chair
**33rd Annual POMS Conference: Session of Empirical Research in Healthcare Operations          May 2023**
   Session Chair
**The Analytics Summit Conference, Center for Business Analytics, University of Cincinnati          May 2023**
   Student Volunteer


## TEACHING EXPERIENCE

**Instructor: Operations Management          August 2024 – December 2024**
**University of Cincinnati          Cincinnati, Ohio**

**Instructor: Decision Modeling          June 2024 – August 2024**
**University of Cincinnati          Cincinnati, Ohio**

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| **Instructor: Data Analysis** | **October 2023 – December 2023** |
| **University of Cincinnati** | **Cincinnati, Ohio** |

**Teaching Assistant: Simulation Modeling and Methods** — **May 2021 – August 2021**
**University of Cincinnati** — **Cincinnati, Ohio**

**Teaching Assistant: Management of Operations** — **May 2021 – June 2021**
**University of Cincinnati** — **Cincinnati, Ohio**

**Teaching Assistant: Adv Healthcare Data Analytics** — **March 2021 – May 2021**
**University of Cincinnati** — **Cincinnati, Ohio**

**Teaching Assistant: Healthcare Management and Operations** — **January 2021 – May 2021**
**University of Cincinnati** — **Cincinnati, Ohio**

**Teaching Assistant: Project Management** — **August 2020 – December 2020**
**University of Cincinnati** — **Cincinnati, Ohio**

**Teaching Assistant: Physics Experiment** — **February 2012 – January 2013**
**National Chung Cheng University** — **Chiayi, Taiwan**

## CERTIFICATIONS

**Udemy** — **June 2020**

    Machine Learning, Data Science and Deep Learning with Python
    https://www.udemy.com/certificate/UC-bfd4c2eb-4492-446a-8d5a-
    1ff3b7488387/?utm_medium=email&utm_campaign=email&utm_source=sendgrid.com

**Oracle** — **August 2017**

    Oracle Database SQL Certified Expert
    https://www.youracclaim.com/badges/41cb64b6-48cf-464a-88cf-abab1f82c4dc/public_url

**SAS Institute** — **September 2017**

    SAS Certified Advanced Programmer for SAS 9
    https://www.youracclaim.com/badges/5316ce07-bede-4cf8-85ba-db5a149aa9d1/linked_in_profile

**SAS Institute** — **August 2017**

    SAS Certified Base Programmer for SAS 9
    https://www.youracclaim.com/badges/289f6951-cbb5-4a06-8697-53e30c2932f0/linked_in_profile

**Iowa State University, Ames, IA** — **August 2017**

    Business Analytics
    https://drive.google.com/file/d/0Bysd4S08arI_bHExV2ZYNi1zdFU/view

## WORKING EXPERIENCE

**Senior Data Analyst / Senior Statistician** — **November 2017 – July 2020**
**General Dynamics Information Technology** — **West Des Moines, Iowa**

- Performs data management and analytic tasks for health care initiatives delivered by Center for Medicare & Medicaid (CMS)
- CMS contracts served:
    - Unified Post-Acute Care Public Use File (Unified PAC PUF)
    - Geographic Variation Public Use File (GV PUF)

- o Bundled Payments for Care Improvement (BPCI) Model
- o BPCI Advanced Model
- o Comprehensive End State Renal Disease Care Model (CEC)
- o Long-Term Institutionalized (LTI) Resident Report
- Identify efficiencies that may be used to improve processing time and space utilization; including using SAS Grid Manager for parallel processing of large Medicare claims and enrollment files. E.x. CEC contract save 82% processing time; LTI contract save 90% processing time
- Uses data knowledge to identify appropriate data sources for research questions
- Communicates with customers regarding the specifications of data products

**Supply Chain Analyst (Contractor)**  October 2017 – November 2017
**3M**  Maplewood, Minnesota

- Involved in Health Care Department Training
- Executed SAP system and participated in SAP Training
- Attended Supply Chain System Training
- Communicated with customer and colleagues to fulfill scheduling Optimization, Changeover reduction, Inventory Optimization, and Service Attainment Improvement

**Spring & Summer Internship - Supply Chain Analyst**  March 2017 – August 2017
**Hy-Vee, Inc.**  West Des Moines, Iowa

- Coordinated and participated in major transportation profitability and warehouse performance improvement initiatives and projects, specifically in modeling route analysis and improving warehouse performance
- Provided technical expertise to the purchasing department and the subsidiary- Perishable Distributors of Iowa, Ltd. by utilizing VBA, statistical methods, and working directly with logistics coordinator and buyers to visualize and ameliorate profitability and performance
- Coordinated with IT department to import logistics data to new Transportation Management System for route optimization to improve quality of future transportation profitability analysis

**Summer Internship – Business Analyst**  May 2016 – August 2016
**United Supplier, Inc.**  Ames, Iowa

- Partnered with business analysts, developers, and users on FAST project, a new in-house ERP system development on a .NET platform, gained experience with agile project management style and quality assurance control utilizing JIRA
- Concentrated on requirement collecting, quality assurance, and user training session with overall improvement for system production environment

**Applied Logistics Project- Arizona State University**  Jan 2015 – May 2015
**Trax Technologies**  Tempe, Arizona

- Analyzed complex logistics decisions and leveraged the supply chain data building up a robust, modular, cost-to-serve analysis model to optimize supply sourcing and distribution which including sourcing cost, transportation cost, custom cost, warehouse location, and lead time analysis on a global scale
- Designed Total Landed Cost model with detailed information on profitability and expense for customers
- Utilized Excel solver and linear programming algorithm to optimize Total Landed Cost

**Management Specialist**  July 2013 – June 2014

**Military Service, Water Resources Agency, Ministry of Economic Affairs**          **Kaohsiung, Taiwan**

- Squad leader of 16 soldiers, coordinated with government representatives during typhoon season
- Avoided casualty in the 3rd quarter of 2013 by coordinating with local volunteers and government engineers to ensure the safety of residents and disaster relief delivery during typhoon season
- Initiated and led team of 16 alternative service soldiers collaborating with local charity organization on a six-month community service project
- Effectively gained approval from supervisor to reinvest into athletic facilities for military camp
- Assisted contract system developer to improve overall agency website user experience
- Increased application processes efficiency by 35% by collaborating with software technician

## SKILLS

**Language:** Mandarin Chinese (Native) • Taiwanese (Native) • English (Proficient)

**Computer:** Statistical Analysis System (SAS) • Structured Query Language (SQL) • R Language • Visual Basic for Applications (VBA) • JMP • Python • Java Script • HTML • FORTRAN • Arena