Joi Chu-Ketterer

Research Fellow at U.S. EPA

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https://github.com/jckett/

Experienced data analyst with M.S. in Data Science and analytical chemistry background. Project experience in data modeling (drinking water systems), data analytics, data visualization, predictive modeling, and machine learning algorithms. Practiced in instrument monitoring and analytic method performance. U.S. Citizen.

CERTIFICATIONS, FRAMEWORKS, AND INSTRUMENTATION

COVID-19 Contact Tracing, JHU 2020 | Database SQL Certified Associate, Oracle 2019

Python | R | SQL | GIS | VBA | Tableau | Power BI | LaTex

Agilent ChemStation | GC/MS | FTIR Spectroscopy | UV-Vis Spectroscopy

WORK EXPERIENCE

Oak Ridge Institute for Science and Education — November 2020 - Present

Research Fellow at U.S. Environmental Protection Agency — Falls Church, VA

- Maintain and develop EPA's Water Network Tool for Resilience (WNTR) python package scripts to evaluate U.S. drinking water systems against disaster resilience
- Create interactive dashboards to display results to water utilities
- First author on a paper and book chapter on drinking water resilience case study, pending publication
- Presented during first *ORISE Meets the World* seminar series on resilience research

Walt Disney Company — May 2018 – September 2020

Field and Office Cast Member, Lead Manager — Glendale, CA

- M.S. in Data Science candidate through Disney Aspire scholarship program
- Integral team member in Business Invoicing, LP and Safety, and Sales Audit processing
- Streamlined invoicing to minimize processing time using VBA by 75%
- Created KPI visualizations in Excel and Python to identify fraudulent activity
- Ensured customer-facing and business operations run smoothly and help coach and support 10 team members

American Scientific Laboratories — February 2017 – March 2020

Lab Coordinator, Volatiles Chemist — Los Angeles, CA

- Promoted to head chemist within one year, received first promotion within 3 months
- Conduct GC/MS and UV-Vis techniques to analyze VOCs, TPH, and TRPH using EPA methods 624, 8015M, and 8260B and generate client reports
- Created sampling schedules for over 300 water, soil, and air samples each week
- Developed a project management system to increase productivity and reduce missed deadlines by 30% and acted as point of contact across all departments

Walt Disney World Parks & Resorts — June 2016 – January 2017
Chemistry Professional Intern — Lake Buena Vista, FL

- Maintained and observed water health for animal systems throughout EPCOT and Disney's Animal Kingdom, including a water treatment plant
- Monitored qualitative parameters of 12 million gallons of water daily using ozone, sodium hypochlorite, and UV disinfection
- Conducted spectroscopy, titration, and chromatography analysis to test for analytes in freshwater and saltwater systems
- Headed safety talks to department leads during biweekly meetings
- Created data models to develop salinity water treatment schedule to help new freshwater plants acclimate to saltwater systems.

SELECTED SCHOLARSHIPS AND AWARDS

- Disney Aspire Academic Scholarship, 2019
- Women in Technology/Girls in Technology Scholarship, 2012
- USA Girl Scouts - Gold 2010, Silver 2008, Bronze 2006

EDUCATION

Bellevue University, Bellevue, NE
MSc, Data Science, 2020

Pitzer College, Claremont, CA
BA, Chemistry, 2016 (Thesis: Systematic Analysis of Primary Alcohols)
BA, Mathematics, 2016 (Thesis: Exploration into Representation of Curvature through Physical Materials)

COMMUNITY SERVICE

J. PAUL GETTY MUSEUM, GETTY CENTER — February 2017 – April 2020
Visitor Services Volunteer — Los Angeles, CA

- Greeted and provided museum guests with personalized itinerary
- Mandarin guide for international guests

ASCEND, Greater Washington Chapter — May 2015 – March 2016
Volunteer Assistant - Membership Committee — Washington, DC

- Organized membership appreciation events for a nonprofit organization dedicated to the professional development of Pan Asians in the United States
- Created vendor and venue resource bank for future events
- Developed marketing collateral including web-based media used to increase membership over 20%.