Contact: tanya.yt.tan@gmail.com | 857-452-4321 | Linkedin | GitHub | Blog | Tableau Public

Tanya Tan, Data Analyst

Supporting data-driven business strategies in higher education and educational technology industry

Skills

- Technical: Python (pandas, seaborn, scikit-learn, nltk), Tableau, R (caret, dplyr, ggplot2), SQL, HTML, MS Excel, MS Access, Qualtrics, SurveyMonkey, SPSS
- Non-technical: teamwork, project management, adaptability, self-directed learning

Work Experience

Research Analyst, Institutional Research
Langara College, Vancouver, Canada | *from Dec 2018 to Present*

- Develop interactive Tableau dashboards and reports to support senior management's strategic planning
- Build efficient and reproducible analytics workflows using Tableau, R, Excel, and MS Access
- Manage regular reports of student applications, enrollment, academic outcome and workload
- Conduct complex analyses to inform recruitment and marketing strategies and course planning
- Analyze surveys related to program reviews and other college-wide initiatives
- Coordinate user management on Tableau Online and monitor site traffic patterns. With our team's effort, we have seen a 5+ times higher weekly traffic to Tableau Online site in 2020Q1 compared to 2019.

Education Specialist, Chemistry
University of British Columbia, Vancouver, Canada | *from May 2017 to Dec 2018*

- Led the instructional design, research and evaluation components of an educational technology project (funded amount $226K+) with substantial expansion from implementing in a single course pilot to ~3000 students in 7 large-enrollment courses
- Provided consultation service to instructors on best practices of integrating the online learning tool (Alchemy)
- Conducted use-case testing, ad hoc analysis and survey research (using Qualtrics) to optimize the e-learning tool

Education Research Assistant | *Simon Frasor University, Burnaby, Canada* | *from Sep 2016 to Aug 2018*

Chemistry Lab Instructor | *Kwantlen Polytechnic University, Surrey, Canada* | *from Aug 2016 to Apr 2017*

Teaching Lab Specialist | *University of Illinois, Springfield, IL* | *from Oct 2013 to Jun 2016*

- Designed and led learning activities in 6 weekly lab sections
- Successfully initiated and completed several technology integration projects

Education & Certifications

- Data Scientist Nanodegree, Udacity (2020)
- Python for Data Science Nanodegree, Udacity (2020)
- Tableau Analyst Certificate, Tableau (2020)
- Data Science Foundations using R, Coursera (2020)
- M.Sc. in Chemistry, University of British Columbia, Vancouver, BC, Canada (2012)
- B.Sc. in Chemistry, Peking University, China (2009)

Selected Projects

Optimizing Starbucks App Offers with Machine Learning Algorithms (2020) | GitHub Repository | Blog Post

- Building a random forest model that predicts customers' response to App offers with 73% accuracy.

Boston Airbnb Rental Data Analysis (2020) | Github Repository | Blog Post

- Visualizing geographical and seasonal trends in pricing and availability of Airbnb Rentals in Boston area.

Online Teaching Preparedness Dashboard (2020) |Tableau Public

- Presenting a bird's-eye view of online teaching integration and assessing the impact of quick online transition

Annual Update Dashboard for Quality Assurance and Process Audit (QAPA) (2019)

- A high-level executive dashboard that analyzes student demand, department/program performance, and student outcomes

International Student Course Section Allocation Model (2019)

- A What-if Tableau dashboard that factors in enrollment pattern and tuition revenue, user-defined enrollment requirements, to predict international student enrolment and model course section needs.

Student Mobility Dashboard (2019)

- Customized Tableau dashboard to allow stakeholders to track student transfers within B.C post-secondary systems thus to provide important insights in program planning and marketing strategies.

Data-Enabled Pedagogy and Technology for Critical Thinking and Decision Making Skills (2018) | Poster

- Our team developed a pedagogical method and online tool, code-named Alchemy, that helps students improve their critical-thinking and decision-making skills.

Publications

[4] **Tan, T.Y.**, Jain, M., Obaid, T. *et al.* What can completion time of quizzes tell us about students' motivations and learning strategies?. *Journal of Computing in High Education* **32**,389–405 (2020).

[3] **Tan, T.,** Bains, O., Barley E., Sharp J.C., Barker, M. Can we influence student success in group work? The impact of lab group composition on student outcomes, presented at *Society for the Advancement of Biology Education Research Annual Meeting* (2019)

[2] **Tan, TY.,** Nesbit, S., Ellis, N., Ostafichuk, P. Crossing Boundaries: Developing Transdisciplinary Skills in Engineering Education, presented at *Canadian Engineering Education Association Conference, Vancouver, BC* (2018)

[1] **Tan, Y.**, Konorov, S. O., Schulze, H. G., Piret, J. M., Blades, M. W., & Turner, R. F. Comparative study using Raman microspectroscopy reveals spectral signatures of human induced pluripotent cells more closely resemble those from human embryonic stem cells than those from differentiated cells. *Analyst*, **137(19)**, 4509-4515 (2012)