Ting Zhang

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**Career Summary**

* 10+ years of data analysis experience in Biomedical research
* Experienced user of data analysis software
* Proficiency in advanced Biomedical technology
* Proficiency in Python/SQL/Perl/R

**Technical Expertise**

* **Data analysis platforms:** Spark, Hadoop, MongoDB, Databricks, Tableau
* **Programming Language:** Python, SQL, Perl, R
* **Advanced Biomedical Technology:** Flow Cytometry, Confocal Microscopy, Mass Cytometry, Imaging Mass Cytomtery
* **Biomedical Software:** Flowjo, Volocity, ImageJ, CyTOF, Cytobank, Cell Profiler, Seven Bridges, SeqGeq
* **Fundamental Biological Techniques:** Cells (Cell culture, cryopreservation, antibody staining etc.), Proteins (Western-Blot, ELISA etc.), and DNA/RNA (Extraction, Sequencing etc.)

**Experience**

**Research Project Coordinator (full-time, Immunology research facilities)** *2022 to present*

The Hospital for Sick Children, Toronto, ON

* Support data analysis of multiple technology platforms:
  + - Analyze flow cytometry and mass cytometry data using Cytobank, Flowjo
    - Analyze single cell sequencing data using R, Python, Seven Bridges and SeqGeq
    - Analyze imaging data using Python, Cell Profiler, and Histocat
* Establish client relationship and exceptional customer service
  + - Design and conduct wet lab experiments for clients
    - Provide demos and information session for of Mass Cytometry to new clients
* Support instrument operations
  + - Test new BD high-dimensional flow cytometers
    - Troubleshoot operational issues of Mass Cytometry and Imaging instruments

**Technical Support (full-time, Mass Cytometry Technology platform)**

Fluidigm Canada Inc, Markham, ON  *2018 to 2022*

* Support external researchers on application inquiries:
  + Excellence in data analysis service and pipeline design
  + Introduction to company’s new technology platforms and experimental protocols
  + Troubleshoot of experimental design, reagent performance, data analysis pipelines
  + Investigated/Resolved customer complaints on reagent quality issues.
* Support external instrument operators on service inquiries:
  + Troubleshoot performance/mechanical failure of the instruments.
* Support internal departments
  + Designed training materials and training new team members
  + Wrote/Reviewed new knowledge articles for global support teams
  + Led projects for change requests on customer-facing documents
  + Led projects to optimize internal workflows
* Experienced user of CRM software (Salesforce)

**Research Technician/Associate lab manager (full-time, Immunology lab)**

Lunenfeld-Tanenbaum Research Institute, Toronto, ON  *2015 to 2018*

* Data acquiring and quantitative analysis of flow cytometry and confocal imaging
* Conduct wet lab experiments and maintenance
* Lab daily operation management
  + Improvement and standardization of lab protocols.
  + Establishment of lab materials database and keep MSDS up-to-date.
  + Safety maintenance for BSL2(CL2) lab, including attending institutional monthly safety meetings, coordinating with annual safety checks, update lab members safety certificates.
  + Processed lab purchase orders.
* Mentored new graduate students/ summer students

**Webpage Annotator (volunteer)**

Sciencescape Inc. (later acquired by Chan Zuckerburg Initiative), Toronto, ON *2015 - 2016*

* Identification of outcome errors to improve machine learning algorithm

**Outreach teacher (volunteer)**

Let’s talk Science, Hamilton and Toronto, ON *2015 - 2016*

**Research Assistant (student, Bioinformatics lab)**

Simon Fraser University, Burnaby, BC *2011 - 2014*

* DNA sequencing and genetic screening data analysis
* Quantitative analysis of imaging data
* Significant discovery: identified an important transcriptional factor that regulate *mks-1* expression and subset of ciliated neurogenesis in *C.elegans*.

**Teaching Assistant (part-time)**

Simon Fraser University, Burnaby, BC *2012 - 2013*

* Taught tutorials for Molecular Biology and Biochemistry courses

**Education**

Post-graduate certificate, Data Science, joint program in University of Toronto and University of Waterloo, Toronto, ON *2021-2022*

* Courses on Foundation of Data Science, Statistics, Big Data, Machine Learning
* Led and coordinated with classmates on projects:
  + Film rental market analysis: used tools from Matplotlib
  + Patient survival analysis: used logistic regression modelling from stats package
  + Dry bean classification models: used sci-kit learn machine learning models
  + Michelin restaurant classification analysis: used pyspark MMlib models

Master of Science, Molecular Biology, Simon Fraser University, Burnaby, BC *2011-2014*

* Thesis: Transcriptional Regulation of Ciliopathy Gene *MKS1/mks-1*

Bachelor of Science, Biological Sciences, Fudan University, Shanghai, China *2007-2011*