

# Ninghua (Michael) Zhang

Toronto ON • (647) 928-6118 • nzhang26@my.centennialcollege.ca

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## PROFILE

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Practical experienced industrial (CNC) programmer with a solid background in operating databases, analyzing and processing data. Excellent at time management, multitasking and problem-solving. Detail-oriented with good communication skills.

## PROFESSIONAL HIGHLIGHTS

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- In-depth knowledge of **C#, HTML, CSS, JavaScript, jQuery, Unix/Linux, Java, R**
- Solid knowledge and experience in designing **SQL queries** to perform relational database development and data extraction
- Practical **coding** and **troubleshooting** experience via **Python programming** (Numpy, Pandas) to perform predictive analysis
- Familiar with object-oriented programming, user-oriented design, algorithm concepts and software development lifecycle
- Hands-on analytical professional experience includes data extraction, data aggregation, data modeling and reporting etc.
- Extensive statistical knowledge including Regression Modeling, Time Series, Decision Trees, Clustering, Parametric Models
- Self-starter, willingness to learn & quick learner; A self-motivated, energetic, flexible and hard-working team player

## EDUCATION BACKGROUND

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### Software Engineering Technology Co-op Advanced Diploma

Jan. 2022 – Present

Centennial College, Toronto, ON

- **GPA:** 4.5/4.5 (A+)
- **Interested Courses:** C# Programming, Web Development, SQL Databases, Java Programming, Unix/Linux OS
- **Career Objectives:** Software Engineering, Software Test, Web application development, Database Management

### Honours Bachelor of Science, Triple Major in Statistics, Mathematics and Physics

Graduation: June 2021

University of Toronto, St. George Campus, Toronto, ON

- **Interested Courses:** Methods of Data Analysis, Time Series Analysis, Computer Science, Mathematical Logic, Number Theory, Group Theory, Ordinary/Partial Differential Equations, Discrete Mathematics, Linear Algebra, Data Structure
- **Leadership Experience:** President at the St. Michael College Chinese Association (University of Toronto)

## EMPLOYMENT EXPERIENCE

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### Consultant, Sanmenxia Hongxin New Material Technology Co., Ltd., Sanmenxia, China

July 2019 – Aug. 2020

- Implemented CRM model to manage projects, explore and analyze the client behaviors, and track sales performance
- Understood clients' need, offered the professional advice to resolve their concern and achieve a level of customer satisfaction
- Automated the data input process using **VBA**, greatly improved data processing efficiency and eliminated human errors
- Discovered inefficient processing gap, resolved the issues and enhanced business processes by replacing missing values and correcting invalid Excel functions, formatting data cells and utilizing **visualization tool pivot table** to build dashboards
- Illustrated high quality of work and great attention to details by achieving **100%** of accuracy in verifying client data
- Delivered reports with insights and actionable recommendations based on analyzed results to supervisor in decision-making

### Actuarial Analyst, Shanxi Wojite Machinery Equipment Co., Ltd., Taiyuan, China

May. 2018 – June 2019

- Performed data cleaning using **Python** to impute missing data and rearrange dataset in a goal of ensuring high quality of data
- Derived and tested different possibilities through changing key actuarial inputs such as payments and premium frequency
- Assisted to create model for severity by examining the distribution of severity include Gamma, Pareto and Weibull
- Streamlined organizational workflow by managing multiple tasks include data quality control, data incompleteness
- Designed functional queries via **SAS programming** to perform data validation and aggregation based on business objectives

### Credit Risk Analyst, Shanxi Huabiao Machinery Equipment Co., Ltd., Taiyuan, China

May. 2016 – Aug. 2017

- Developed and established **SQL** database, indexes, and complex queries for the purpose of data analysis and extraction
- Conducted in-depth risk assessment and evaluation on money lenders' applications to determine their risk tolerance level
- Incorporated credit assessment model to investigate, analyze and test the clients' financial capacity and repayment ability
- Demonstrated superior communication skills by interpreting credit risk analysis results to non-technical colleagues
- Investigated, located and debugged the improper excel functions and macro issues to ensure the stabilization of risk model
- Assisted in post-lending maintenance and approval process of credit extension to ensure risks are monitored and managed

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## PROJECT EXPERIENCE

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Credit Data Analysis, Data analytical project using **SQL & SAS Programming**, Toronto, ON **Sep. 2021 – Nov. 2021**

- Cleansed the database via **SAS data step** and **Proc Univariate** functions to remove outliers and ensure high quality database
- Successfully coded **SAS macros** (SAS PROC SGPLOT and ODS) to automate reporting and visualize data trends
- Utilized SQL to update data via multiple sources and leveraged **SQL solutions** (inner join, subquery) to solve business issue

Earnings Prediction, Data Science and Machine Learning Project **using Python**, Toronto, ON **Oct. 2020 – Dec. 2020**

- Implemented various machine learning techniques using **Python** such as Gradient Boosting, Neural Network and Support Vector Machine to build a forecasting model to predict earnings growth based on various attributes
- Conducted feature engineering by creating dummy variables, increased number of variables and enhanced model accuracy

## TECHNICAL SKILLS

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**Programming Languages:** C#, Java, Python, SQL, HTML, CSS, JavaScript, R, Shell

**Frameworks & Tools:** Numpy, Pandas, LaTeX, Git, VS code, Linux kernel, MySQL, Bash, MongoDB

**Operating Systems:** Windows, macOS, Unix, Linux