# Kevin Dang

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## EDUCATION

### UNIVERSITY OF TORONTO

Honours Bachelor of Science

*Applied Statistics Specialist*
*Mathematics Minor*

2016 - Present

### COURSES

- Computer Programming
- Design & Analysis of Experiments
- Linear Algebra
- Machine Learning
- Methods of Data Analysis
- Multivariate Calculus
- Partial Differential Equations
- Statistical Practice
- Statistical Theory

### MOOCs

- MIT: Computer Science using Python
- Stanford: Machine Learning
- UofT: Learn to Program

## SKILLS

### PROGRAMMING

- Python • R • SQL • Stata
- Matlab • HTML • CSS

### OTHER

- LaTeX • MS Access
- MS Excel • MS Office

## AWARDS

UofT Entrance Scholarship
- 92%+ average

AP National Scholar
- 98th Percentile

Mathematics Award
- Highest overall average across all senior math courses

## INTERESTS

Volunteering
- Eco-Team Executive
- Student Council Representative
- Statistics Study Group Leader
- Tennis Canada (Fundraising)

Hobbies
- Board games • Bowling • Piano
- Soccer • Table Tennis

## EXPERIENCE

### ROTMAN SCHOOL OF MANAGEMENT | *Research Assistant*

May 2018 - Present | Toronto, ON

- Worked under the supervision of **Dr. Christopher Liu** with a **team of graduate students** on a project to analyze career trajectories of PhD Life Scientists
- **Queried scientific databases using Python-based API-Wrappers**, worked with **dataframes** using **Pandas** and exported data into Stata
- **Merged and manipulated large datasets with Stata**, extracted desired information, cleaned data and generated new variables
- Used **BeautifulSoup for web scraping** and exported data into Excel to improve efficiency in creating new datasets

### MOSAIC NORTH AMERICA | *Brand Ambassador*

Oct 2015 – Sep 2017 | Toronto, ON

- Promoted different types of brands for numerous companies and **consistently increased product sales** by more than the daily target of **25%**
- Wrote reports containing information regarding customer interaction, sales made, products purchased, demo issues and conflict resolution

## PROJECTS

### RADIUS OF THE EARTH | *Python*

- Collected data on gravitational strength using a gravimeter, manipulated data with **NumPy** and fit models to the data using **SciPy**
- Plotted models using **matplotlib** and performed **chi-squared analysis** on the models to check for goodness of fit, and estimated the radius of the Earth to **within 30 kilometres**

### NODAL INVOLVEMENT IN PROSTATE CANCER | *R Markdown*

- Fit **binary logistic regression models** and analyzed deviance to assess which predictors are significant in predicting nodal involvement
- Visualized the success rates of predictors with **ggplot**, and used **corrplot** to show potential relationships between predictors

### JOB APPLICATIONS | *SQL*

- Stored job application data in a **SQLite database** for efficient data retrieval
- **Wrote queries** to extract specific information displayed in a table

### HANDWRITTEN DIGIT RECOGNITION | *Matlab*

- Implemented **one-vs-all regularized logistic regression** and **neural networks** to recognize hand-written digits
- Vectorized **cost function** and **gradient** for logistic regression and implemented **feedforward propagation** to use trained weights for prediction

### RENT-A-BIKE | *Python*

- Extracted and cleaned data from an **Excel spreadsheet** to manage Toronto's bike share network across **200 stations**
- Implemented functions for **data queries and data modification**; simulated bike rentals and returns, kept track of the current state of the network and provided directions for riders

### CALIBRATING A SNOW GAUGE | *R Markdown*

- Plotted standardized residuals and normal quantile plot using **ggplot** to check the **linear regression** model assumptions
- Performed a **box-cox transformation** on the predictor variable and yielded a transformed linear model with a **correlation coefficient above 0.99**