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github.com/peggalex



https://peggalex.github.io

# education

# honorary bsc | computer science and economics

university of toronto | 2016-2020

- cs gpa: 3.28
- honorary bachelors of science
- passion for web dev and AI

# coursework

### computation

introduction to neural networks machine learning and data mining algorithm design and analysis software design and engineering programming on the web systems programming computer organisation data structures and analysis numerical methods

#### stat/math

calculus of several variables linear algebra I probability and statistics I introduction to mathematical proofs calculus and linear algebra for commerce

#### economics

quantitative methods in economics macroeconomic theory and policy money, banking & financial markets microeconomic theory

# skills

#### languages and technologies

experienced

python • java • html/css • javascript • numpy proficient

c • SQL and NoSQL (neo4j) • php • LATEX

#### general

os

linux (remote via ssh & sftp) • macOS • windows ides

eclipse • vim • idle • jupyter notebook other

- full-stack server (web frontend, flask/nodejs)
- agile development with SCRUM
- implementing machine learning technologies in vanilla numpy or pytorch
- version control via git console
- nodejs express routing, websockets and sqlite
- php full stack servers with logins and sessions

# experience

# university of toronto | teaching assistant

winter 2019

- paid position at the university
- hosted mandatory weekly 2 hour tutorials for the first year computer science course
- taught in python
- create solutions manuals and mark midterms/final exams
- host office hours and invigilate tests

### project include | teaching assistant

summer 2018

- volunteering student initiative amongst team of 16
- helped coordinate and carry out a coding bootcamp for at-risk secondary students across mississauga
- teaching basic python at different libraries and schools for 4 weeks
- prelimiary marketing and organisation

# university of toronto | special projects

early 2019-present

- volunteering project of just myself (self initiative)
- creating a indifference curve analysis (microeconomics) graphing software
- full stack with web frontend, python flask backend
- self-learned web (I have since taken a webdev university course) and sympy library for this project
- embedded on economics student page for all University of Toronto Mississauga economics students.
- permanent url: https://mcsapps.utm.utoronto.ca/micrographer

# scotiabank | 2020 big data & ai case competition

winter 2020

- first place winner (\$3000 prize)
- tasked with detecting money laundering in real bank data unsupervised classification
- used Microsoft Azure cloud computing to perform heavy tasks using ssh and sftp.
- parameterised using neo4j nosql database and python driver
- used multivariate normal from scipy to detect outliers

# independent | mini apps

present

- small independent projects on website
- further java and python experiments on github repository
- links are by the icons at the top of page