Chenkai Zhu

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EXPERIENCE

IBM | Software Engineering Intern
Jan 2020 – Apr 2020 | Toronto, CA

- **Increased user retention rate** by 15% on IBM Cognos Analytics platform by using Python and SQL to identify key weak spots in the product that caused high customer churn
- Guided marketing team by **identifying user behavior patterns** and creating data visualization reports in React, resulting in 15% more accurate user targeting
- **Performed sentiment analysis** on online customer feedback for IBM Analytics application with 95% confidence interval by using Python and Scikit-learn to extract and analyze 9,000 records from IBM DB2
- Architected **networking error detection infrastructure** for IBM business analytics mobile application in React Native

CORE.IO | Software Engineer Intern
May 2019 – Aug 2019 | Toronto, CA

- Created a **native mobile app** for 500 employees to manage timesheets by using JavaScript and React Native within ServiceNow Studio
- Decreased **data scraping** time by 20% through automating the process in high frequency using BeautifulSoup and Scrapy
- Designed a **JavaScript library** used today by Manulife that facilitates the developing custom PDF documents

U. OF WATERLOO | Teaching Assistant
Sept 2019 – Present | Waterloo, CA

- Tutored **800 students** weekly in 2 calculus courses
- Conducted tutorial lessons for 100 students enrolled in **4 undergraduate math courses**

PC FINANCIAL | Financial Analyst
Jan 2019 – Apr 2019 | Waterloo, CA

- Automated calculations for **5 quantitative measures** on equity return using C++

PROJECTS

VIRTUAL THERAPIST | Amazon Alexa skill

- Reduced **Canadian Mental Health Association** suicide hotline wait time by developing an accessible mental health counseling platform that detects **speech emotion** and responds to verbal distress signals in Python and Keras
- Augmented Alexa's professional knowledge in psychology and counseling by implementing various API to create over 30 conversation scenarios

AI TECHNICIAN | ML matching algorithm

- Reduced IT ticket resolution time by developing a **bag-of-words** based **machine learning model** to match different tickets based on records' input descriptions

EDUCATION

BACHELOR OF COMPUTER SCIENCE
University of Waterloo

- Expected May 2022
- GPA: 3.8 / 4.0
- Dean's List
- **$30,000** awarded in scholarships
- Admission average **98.2%**

SKILLS

PROGRAMMING
Python | C++ | C | JavaScript

FRAMEWORKS
Tensorflow | Scikit-learn | Numpy | Pandas | React | Node | MongoDB

ACHIEVEMENTS

ACADEMIC

- 1st place, **CFM Hackathon** (40+ teams)
- 3rd place, Singapore **International Mathematics Competition** (900+ students)
- President, Mathematical modelling club (50+ students)
- Math faculty global award (2,000+ students)

EXTRACURRICULAR

- Captain, **varsity basketball** team
- 1st place, Manitoba **Half Marathon** (age group 14 - 19)
- Gold medal, MusicFest Canada (10,000+ attendees)
- 1st place, Manitoba basketball provincials (16 teams)