Kunal Chandan

Waterloo Computer Engineering Candidate

kunalchandan.github.io
kchandan@uwaterloo.ca
647-785-1313
github.com/kunalchandan
linkedin.com/in/kunal-chandan

LANGUAGES

- Java
  - OpenGL
  - Selenium
- Shell
  - AWK
- Python
  - TensorFlow
  - PyTorch
  - NLPTK
  - OpenCV
  - Pandas
  - Numpy
  - Selenium
  - MatPlotLib
- Octave/MATLAB
  - PsychToolbox
- LaTeX & XeLaTeX
  - Tikz
- SQL
- C/C++

SKILLS

- Linux
- Data Cleaning
- Webscraping
- Statistics
- Git
- Altium
- Jira

CLUBS

Engineering Society Rep.
Waterloop Electrical Member

EDUCATION

UNIVERSITY OF WATERLOO
B.ASc Computer Engineering Candidate

SUMMARY OF QUALIFICATIONS

- 5 years of programming experience in **Java**, **Python** & **C++**
- Extensive experience with **Linux** operating systems & **Shell**
- **Data science** experience from prior internships at **York U** & **OICR**
- **Machine Learning** personal projects with **Tensorflow**, **NLPTK**, and **PyTorch**

EXPERIENCE

BIOINFORMATICIAN | Ontario Institute for Cancer Research

Jan 2019 - April 2019 | Toronto, ON

- Built genomics pipelines for **data visualization**
- Wrote human-friendly **optimized** code for processing large datasets (**Pandas** & **AWK**)
- Created markdown documentation; Project version controlled with **Git**

RESEARCH INTERN | Elder Lab, York University

June 2017 - June 2018 | Toronto, ON

- Created 2 novel **psychophysics** experiments using **MATLAB** with **PsychToolbox**
- Conducted data augmentation, **visualization**, interpretation using **Python**, **OpenCV**, **MatPlotLib** for experimental data
- Designing methods to gather data using **Amazon Mechanical Turk**

ENGINEERING LEAD | FIRST Team 6632, Supreme Robotics

Sept. 2017 - June 2018 | Toronto, ON

- Lead and coordinated Supreme Robotics' build team
- Designed and programmed **autonomous** robot mode
- Using **Graph theory**, **Functional**, **Object Oriented** and **Procedural** programming

PROJECTS

GITHUB.COM/KUNALCHANDAN

Personal programming projects, highlights include:

- **Game Engine** from scratch using **OpenGL Java bindings** (LWJGL)
- **Physics Engine** (Kinematics & Electrodynamics) written with **Allegro5** & **C++**
- WaterlooWorks and OscarPlus (McMaster) job **crawler**
- **Webcrawlers** for scraping comics from KissComics

MACHINE LEARNING PROJECTS

Natural Language classification of legal documents using **NLPTK** & **Tensorflow**

- Data cleaning and pre-processing using **Pandas** & **Numpy**

Cloud coverage global sequential prediction with **PyTorch**

- Image cleaning and pre-processing with **OpenCV**
- Pooling, **LSTM**s, and **RNN**s used to do image prediction

AWARDS

2019 B.P. Dammizio Scholarship
2018 Co-op Award for Outstanding Achievement
2018 University of Toronto National Biology Competition 78th in Canada