Kunal Chandan

Waterloo Computer Engineering Candidate

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LANGUAGES

- Java
  - LWJGL
- Python
  - OpenCV
  - Selenium
  - Pandas
  - MatPlotLib
  - Numpy
- Octave/MATLAB
  - PsychToolbox
- LaTeX & XeLaTeX
  - Tikz
- SQL
- C/C++

SKILLS

- High Performance Computing
- Linux
- Shell
- Git
- Database Management
- Altium
- Jira

CLUBS

2018 Engineering Society Rep.
2018 Waterloop Electrical Member
2018 FIRST Robotics Engineering Lead
2017 Programming Club Founder
2017 DECA Chapter Executive

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**
- **Software Development** experience from prior internships at **York U** & **OICR**

EXPERIENCE

BIOINFORMATICIAN | Ontario Institute for Cancer Research

Jan 2019 - April 2019 | Toronto, ON

- **Shell** Scripting, Application development of Genomics **Data Pipelines**, **SQL** Database Management
- Wrote human-friendly well **optimized** code for processing large datasets (**Pandas** & **AWK**)
- Wrote well documented **Python**, 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**

QA TESTER | Kindred.ai

June 2018 - July 2018 | Toronto, ON

- Piloted production robots & conducted **QA/testing** of 3 new robots with **Asana**
- Made hardware modifications for **AI research** and **control system optimization**

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**, **Funcitonal**, **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

AWARDS

2018 Jim McQueen Award For Excellence in Education
2018 Co-op Award for Outstanding Achievement
2018 University of Toronto National Biology Competition 78th in Canada
2017 Canadian Computing Competition 1st Northview
2017 Educational Computing Organization of Ontario Round 2 Finalist