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# SKILLS

#### **LANGUAGES**

Python • JavaScript • C++ • Java HTMI 5 • CSS

### FRAMEWORKS & TOOLS

Tornado • Flask • AngularJS • NodeJS NumPy • Pandas • Matplotlib • Tensorflow

PostgreSQL • PostGIS • GDAL • S3 EC2 • API Gateway • AWS Lambda

# LINKS

Github://peterl328 LinkedIn://Peter Leng Devpost://Peter Leng

# **EDUCATION**

### UNIVERSITY OF WATERLOO

B.A.Sc. COMPUTER ENGINEERING Expected 2020 Waterloo, On

# **COURSEWORK**

### **UNDERGRADUATE**

Fundamentals of Programming Algorithms and Data Structures Operating Systems Discrete Mathematics Digital Computers

## AWARDS

#### **HACKATHONS**

TreeHacks 2017 - Top 10/130 HackPrinceton 2016 Fall - Top 5/100 HackPrinceton 2016 Spring - Top 5/80 BostonHacks 2015 - Top 1/60

## **EXPERIENCE**

## **SKYWATCH** | Backend & Data Engineering Intern

Jan 2017 - May 2017 | Kitchener, On

- Decreased database query time by using indexes, optimising PostGIS SQL statements and RDS server configurations from an average of 5 minutes to within 30 seconds
- Built backend systems for admin console and user dashboard using Python-Tornado and PostgreSQL
- Developed a download proxy server to handle asynchronous image downloads using bit streaming which increased average download speed by 40%
- Built an image clipping micro-service using Python-GDAL allowing users to download clipped satellite images

## FLARE | LEAD BACKEND DEVELOPER

June 2016 - Mar 2017 | Toronto, On

- Implemented the Flare App backend using NodeJS and PostgreSQL with PostGIS
- Built an admin console using NodeJS and D3.JS for data visualization
- Developed data pipeline for data visualization using PipelineDB
- Developed and proposed the micro-service architecture for better scalability

### **5CROWD** | Software Developer Intern

May 2016 - Aug 2016 | Toronto, On

- Added responsive To-do feature to Angular JS app and created API endpoints for storing To-dos
- Implemented an invoice system for automatic payments
- Developed advance filtering system for company's client and project list using Angular directives
- Implemented user profile page allowing different logins and web application views

# **PROJECTS**

# **SLITHERIO-AI** | NEURO-EVOLUTION OF AUGMENTING TOPOLOGIES

April 2017

Uses Neural-evolution of Augmenting Topologies and OpenAI gym to train an AI to play SlitherIO  $\,$ 

#### AI-DRAW | GENETIC ALGORITHM

Nov 2016

Al-Draw uses advance genetic algorithms to draw images using circles. The computer iteratively attempts to mimic an input pictures through drawing it with 100 circles of varying circle and radii, and continuously improve its accuracy based on a generic genetic algorithm

### **ENIGMA** | PEBBLE APPLICATION

May 2015 - Nov 2015

Enigma is a WWII cipher machine simulator on the Pebble Watch. It can encrypt text on the watch and can send the message via text. This application was featured on the Pebble app store