Peter Leng

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SKILLS

LANGUAGES
Python • C++ • JavaScript

FRAMEWORKS & TOOLS
NumPy • Pandas • Matplotlib
Tornado • Flask • NodeJS
Tensorflow • Pytorch
PostgreSQL • MongoDB
RabbitMQ • Redis
GCP • Apache Beam • ROS
API Gateway • AWS Lambda • S3
OpenCL • OpenMP

LINKS

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

EDUCATION

UNIVERSITY OF WATERLOO
B.A.Sc. Computer Engineering
June 2020| Waterloo, On

COURSES
Reinforcement Learning
Probabilistic Graphical Models
Programming for Performance (C++)
Compilers & OS
Artificial Intelligence

CERTIFICATES

UDACITY NANODEGREE
Self-Driving Car Engineer

COURSERA
Machine Learning
Control of Mobile Robots

AWARDS

HACKATHONS
Stanford TreeHacks 2017 - Top 2/90
HackPrinceton 2016(F) - Top 5/100
HackPrinceton 2016(S) - Top 5/80
BostonHacks 2015 - Top 1/60

EXPERIENCE

CRUISE | Software Engineering Intern
Sept 2019 - Dec 2019 | San Francisco Bay Area

- Developed Apache Beam pipelines to filter trajectories of tracked objects captured from the AV reducing needs to store raw data saving $300k annually
- Trained a GAN on trajectories of tracked objects for measuring realism of behaviors from pedestrian or vehicle models in simulations
- Helped design and write new code-base from Python3 to C++11/14

Used: Pandas, C++, OpenCL, ROS, GCP, Apache Beam, Pytorch

MACKENZIE INVESTMENTS | Quantitative Researcher Intern
Jan 2019 - April 2019 | Toronto, ON

- Implemented a high-alpha trading strategy for the forex market using principal component analysis and regression models on financial factors

Used: Pandas, NumPy, Matplotlib, PostgreSQL

SPARTAN FUND MANAGEMENT | Lead Quantitative Engineer
May 2018 - Dec 2018 | Toronto, ON

- Managed a fund ($5M AUM) with a small team of engineers and researchers while reporting directly to the CEO
- Designed an entirely new trading system using micro-services architecture on AWS including parallel trading pipelines which improved back-test execution time from 6 hours to 5 minutes for a 20-year test

Used: Pandas, NumPy, Pytorch, MongoDB, NodeJS, AWS Lambda, ElastiCache, Redis, RabbitMQ

PLANGRID | Software Engineering Intern
Sept 2017 - Dec 2017 | San Francisco Bay Area

- Designed and built device sync feature across all mobile platforms (iOS, Android, Windows) to keep track of documents and sheets sync status

Used: C#, WPF, Java, Android, Flask

SKYWATCH | Backend & Data Engineering Intern
Jan 2017 - May 2017 | Kitchener, ON

- Decreased database query time by using indexes, optimizing SQL statements and RDS server configurations from an average of 5 minutes to within 30 seconds
- 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

Used: Python, Tornado, GDAL, PostgreSQL, AWS Lambda, S3

PROJECTS

TINY RENDERER | 3D rendering Engine
Built a 3D rendering engine in C++14 to learn about computer graphics