

Qian Cheng

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EDUCATION

Carnegie Mellon University, Pittsburgh, United States

Sep 2019 – Present

School of Electrical and Computer Engineering,

- **Graduate Student in Electrical & Computer Engineering**
- GPA: 4.0/4.0

Tianjin University, Tianjin, China.

Sep 2015 – Jul 2019

School of Precision Instrument and Opto-Electronics Engineering

- **Bachelor's Degree in Optoelectronic Information Science and Engineering** (Engineering Science Experiment Class)
- GPA: 3.7/4.0

Courses taken: Web Application Development, Computer System, Advanced Cloud Computing, Machine Learning.

INTERNSHIP EXPERIENCE

Nano-phonic Laboratory | Carnegie Mellon University

Sep 2018 – Sep 2019

School of Electrical and Computer Engineering, Carnegie Mellon University

- Developed Python code to accomplish instrument control with laser and optical spectral analyzers.
- Built Graphical User Interface based on PyQt5 and accomplished multi-**thread** operation on a variety of instruments.
- Improved simulation code based on Julia and Python focuses on generating Kerr solitons in micro-ring resonators with laser detuning and improvement of Kerr soliton frequency comb.

PROJECT EXPERIENCE

Flea Market Program | Carnegie Mellon University

Mar 2020 – Apr 2020

- Developed a flea market program using Django frame with HTML, CSS and JavaScript in a team project.
- Implemented basic function such as register, log in, post product, and allowed user to locate their location based on Google API, which is used to show a navigation from current user location to product address on product page.
- Implemented purchase function based on PayPal API and deployed the website on Google cloud instance.
- Understand the mechanism of Django frame and how to design a web application.

Iterative machine learning Program | Carnegie Mellon University

Jan 2020 – Mar 2020

- Designed and optimized Apache Spark program with HDFS to load, preprocess and transform crawled data and processed 180 GB WARC files within 35 minute with 16 AWS m4.xlarge instances.
- Implemented the gradient descent algorithm for logistic regression with Spark based on python and achieved to complete two iteration with 40GB Criteo dataset within 30 minute with 16 AWS m4.xlarge instances.
- Understand the mechanism of HDFS and RDD, and leveraged knowledge about Pyspark and functional programming.

Malloc Lab | Carnegie Mellon University

Nov 2019 – Dec 2019

- Wrote Dynamic Storage Allocator with C language during the course Introduction to Computer System.
- Used different data structure such as Segregated List based on double linked list to improve the performance.
- Learned basic principle of storage allocation in C and also gained knowledge in system design.

Face Recognition Program | Tianjin University

Mar 2018 – Jul 2018

- Designed program with the method of deep learning to recognize particular person's face in a group photo.
- Completed the program based on Python during the course Image Processing.
- Learned basic usage of Python and was familiar with TensorFlow and OpenCV.

SKILLS

Languages: Python, Java, C programming, JavaScript, HTML, CSS, MATLAB, SQL

Frameworks & Tools: Django, Spring Boot, AWS, Spark, TensorFlow