Yuchuan Gou

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Seeking a **full-time Software Engineer job** in a leading technology company

Education Background

University of Florida M.S. in Computer Science **GPA**: 3.43 **08/2016--05/2018**

Graduate Courses: Analysis of Algorithms, Deep Learning, Advanced Data Structure, Big Data

Shanghai Jiao Tong University (top 4), China B.S. in Information Engineering **09/2012--07/2016**

Relevant Courses: Mathematics, Data Structure, Operating System, Computer Network, Data Base

Work & Research Experience

Software Development Engineer, CV team, PingAn Technology US Research Lab 06/2018—Present

- Developed the full-cycle pipeline for GAN painting generation engine: 1) Multi-thread paintings crawler, data pre-processing, model training pipeline; 2) Inference API development and Flask RESTful web demo.
- Implemented CNNMRF style transfer model in Pytorch: 1) reduced inference time **by 86%;** 2) added multi-GPU computing support; 3) increased the image max size support **from 384^2 to 2048^2**.
- Designed an image quick searching algorithm in Tensorflow, utilized CNN backbone for feature extraction and max k feature vectors to compute similarity, achieved **150ms** run-time performance for 1024^2 image.
- Built an AI drawing board web app which can translate user input label to painting images, trained NVIDIA GauGAN model as backend service, implemented web UI with Drawingboard.js, jQuery, Flask.
- Research on GAN model quality improvement, utilized LSTM text embedding attention and segmentation spatial attention, increased IS Score **from 4.4 to 4.8**, planning to submit to CVPR. (Pytorch)

Software Development Engineer Intern, Deep Learning team, Intel 05/2017—08/2017

- Conducted several CNN model inference testing (from different Intel deep learning backbone) for Intel's customers.
- Contributed to *Intel/ Theano Github* repo: 1) Wrote 2 Theano operations with Intel MKL library (C, Python). 2) wrote "Theano-perf" module for testing performance, including benchmark, CPU, disk, memory testing.

Campus Full-Stack Web Developer, Information Technology, UF/IFAS 11/2016--05/2017

- Developed an official website for Florida plants and butterflies. Realized login, bookmark, display, edit functions based on SQL database with C#. (jQuery, ASP.NET MVC, C#, SQL Server) https://ffl.ifas.ufl.edu/butterflies/
- Implemented a geo-locating web app to display the fertilizer map of Florida. Applied Google Maps API and built responsive web UI and map components with Materialize, JavaScript. https://ffl.ifas.ufl.edu/Fertilizer/

Campus Research Assistant, Intelligent Internet of Things, SJTU 10/2015--07/2016

- Built a distributed streaming log data processing pipeline calculating every 2s for real-time website analysis (including page view, user region, user status). Using Flume to gather server log data, Kafka to ingest data stream. Designed a streaming data processing engine with Spark Streaming.

Projects

P2P file sharing software (Group Project, Java)

- Used Java multi-thread, TCP/IP connection to realize P2P file sharing core, implemented P2P handshake, sending message, speed measuring and choke & unchoke mechanism.

Full-Stack Ranking Website(Individual Project, RESTful, Python, Django, JQuery, Bootstrap)

- Built a **RESTful** webserver to rank popular deep learning frameworks. Real-time gathering frames' info by sending post to Github API, storing data in sqlite3 and providing dynamic ranking and charts using JQuery, Bootstrap.

Distributed Web Crawler(Individual Project, Python, Scrapy)

- Built a distributed web crawler pipeline contains multiple spider instances sharing a single Redis queue. Using Xpath, CSS selector, regular expression for parsing content and using requests library for signing in.

Professional Skills

- Languages: Python, Java, C++, JavaScript, Scala, SQL, HTML, CSS;
- Frameworks: Pytorch, Tensorflow, Flask, Spark, Bootstrap, jQuery, Django, ASP.NET, Junit;