Xinquan (Ricky) Wu

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EDUCATION

Indiana University *MS in **Computer Science*** Bloomington, IN, US 08/2017 - 05/2019

- Courses: Algorithms Design & Analysis, Advanced Database Concepts, High Performance Big Data Systems, Advanced Operating Systems, Software Engineering, Machine Learning, Computer Vision, Deep Learning Systems

Beijing Normal Univ *MS in Theoretical Physics* Beijing, China 09/2009 - 06/2012

Guangdong Univ of Tech *BS in Opto-Electronic Sci & Tech* Guangzhou, China 09/2004 - 06/2008

EXPERIENCE

Software Engineer, Azure, Microsoft Redmond, WA, US 09/2019 - now

- Design and Implement method to enable cross region peering between virtual networks
- Maintaining the control plane for resource provider of bare-metal cloud servers

Data Scientist Intern, Data2Discovery Inc (Data Visualization) Remotely 08/2019 - 11/2019

- Developed a dynamic single-page web app for Data Visualization using React.js and D3.js
- Designed and optimized templates for queries from a knowledge graph database on Neo4j

Software Developer with Python Software Foundation, **Google Summer of Code 2018** 05/2018 - 08/2018

- Implemented multi-thread capacities for image registration using Cython and OpenMP
- Acquired 7 times speedup with 48 threads, improved performance of image processing
- Experienced with scripts profiling using cProfile and line_profiler in Python and Cython
- Participated in open source project, used GitHub for source control and issues tracking

Software Engineer, **Top Grade Medical Equipment** Beijing, China 06/2012 - 07/2017

- Developed a software system for radiotherapy planning with 5 years' experience in C/C++
- Acquired 20+ times speedup by implementing a parallel algorithm on GPU using CUDA C
- Integrated the software with the Linear Accelerator, passed the license tests by China's FDA
- Designed and optimized the geometric model of Linear Accelerator with OpenGL Libraries

PROJECTS

Sentiment Analysis for Crypto-Currency (NLP, TensorFlow, PyTorch) 06/2019 - 10/2019

- Used the BERT pretrained model and fine-tuned on sentiment analysis for Crypto-Currency
- Implemented algorithms for aspect-based sentiment analysis using TensorFlow and PyTorch
- Successfully predicted the trend of sentiment on the market, and provided guidance for trading

Hand Gesture Recognition Application (Deep Learning, Computer Vision) 01/2018 - 05/2018

- Created a data set of 600+ images, trained a CNN model using Microsoft Custom Vision
- Improved precision to 94% by removing confusing images, successfully recognized 3 gestures
- Learned Convolution Neural Networks, trained AlexNet on CIFAR-10 using TensorFlow

Social Network Web Application (JavaScript, Node.js, MongoDB, Express) 08/2017 - 12/2017

- Developed a dynamic & scalable web application based on MVC pattern using JavaScript in full stack
- Built controller logics on runtime platform Node.js, and implemented the database using MongoDB
- Implemented features: sign up/in/out, search, follow friends, join groups, upload papers, chat room
- Followed an agile development pattern, and won 3rd place on course project of Software Engineering

ADWARDS

- National Scholarship (for top 1% students) 2005, First-class Scholarship in 2014, 2015 and 2016
- 2nd Prize of Undergrad Physics Experiment Design, and 1st Prize of Undergrad Electronic Design

SKILLS

- Programming Languages: C/C++/C#, CUDA C, Python, JavaScript, SQL, HTML/CSS, Java
- Development Tools: Gatsby.js, React.js, Node.js, MongoDB, TensorFlow, GitHub, Linux