

Edward Hu

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EDUCATION

THE UNIVERSITY OF TEXAS AT AUSTIN | BS COMPUTER SCIENCE Austin, TX | January 2016 - May 2020

EXPERIENCE

H3C | SOFTWARE ENGINEERING INTERN

Chengdu, China | June 2018 – August 2018

- Modified mjpg-streamer(open source software) in order to process mjpg streams for autonomous driving test.
- Implemented a script to analyze mjpg stream processing delay.

WISESOFT | JUNIOR SOFTWARE ENGINEER

Chengdu, China | May 2018 – July 2018

- Implemented Python scripts to automatically apply optimizations on voice recognition model to improve inference speed with Tensorflow tools.
- Implemented scripts to automatically test how different optimization methods affect neural network performance.
- Implemented Python scripts to preprocess training voice files before training.

THE UNIVERSITY OF TEXAS AT AUSTIN | STUDENT RESEARCHER

Austin, TX | August 2016 – Present

- Cooperated with a team of three to develop tools that automate 3-D printer error detection
- Wrote Python scripts to dynamically detect and modify different flavors of 3-D printer instructions

COURSEWORK

Concurrency, Operating Systems, Artificial Intelligence, Compiler, Computer Architecture, Algorithms and Complexity, Data Structure, Computational Intelligence in AI

SKILLS

PROGRAMMING LANGUAGES	C/C++, Java, Go, Python, Javascript, \LaTeX , Unix shells
FRAMEWORKS	OpenMP, NodeJS, Tensorflow, Numpy, Matplotlib
TECHONOLOGY	Linux, GCC/Clang, Docker, Nvidia CUDA, Git, Vim, HTML

PROJECTS

PINTOS | A FUNCTIONAL OPERATING SYSTEM IMPLEMENTED IN C

- Implemented a fully functioning operating system. Major components include: the scheduling system, sys call, virtual memory, ext3-like file system

C THREAD POOL | A THREAD POOL IMPLEMENTED IN C WITH GO-LIKE FUNCTIONALITY

- A thread pool with task structs mapped upon pthreads with performance close to Golang goroutine
- Load balancing thread pool with a thread daemon

PARALLEL K-MEANS ALGORITHM | PERFORMANCE SCALING BY UTILIZING X86 MULTICORE ARCHITECTURE

- Implemented K-means algorithm in C++ and distributed computations upon Unix pthreads using C++11 synchronization standard

MINE SWEEPER | NEURAL NETWORK TRAINING

- Implement a three-layer neural network in Python to increase game units' efficiency in sweeping mine using Pygame framework

EXTRACURRICULAR

HACKTX

Austin, TX | January 2016

Design an Android app to extract product order information from Adidas official website with a team of three

CODING BLOG

<https://bdhu.github.io/>

Share my personal experience and difficulties encountered during programming, and new features of programming languages.

LINUX KERNEL HACKING

I'm mostly interested in memory management subsystem and how virtualization is utilized.