

Edward Hu

bodunhu@utexas.edu | 5125170598 | <https://bdhu.github.io/>

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

PROJECTS

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

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

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

COURSEWORK

Concurrency, Operating Systems, Artificial Intelligence, Neural Network, Computer Architecture, Algorithm

SKILLS

PROGRAMMING LANGUAGES
FRAMEWORKS
TECHONOLOGY

C/C++, Java, Go, Python, Javascript, \LaTeX , Unix shells
OpenMP, Tensorflow, PyTorch, Numpy, Matplotlib
Linux, Nvidia CUDA, GCC/Clang, Docker, Git, Vim

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.