Fang Han

https://www.linkedin.com/in/fang-han-368b1a124/

Email : hanfa@umich.edu
Mobile : +1-734-680-3913

Education

- **University of Michigan** — Ann Arbor, MI
  Bachelor of Computer Science; GPA: 3.86 / 4.0 — *Sept. 2016 – Dec. 2018*
- **UM-SJTU Joint Institute** — Shanghai, China
  Bachelor of Electrical and Computer Engineering — *Sept. 2014 – Aug. 2016*

Experience

- **University of Michigan** — Ann Arbor, MI
  Undergruduate Research Assistant — *Oct. 2017 - Present*
  - **Computer Architecture Research**:
    1. Use gem5 to simulate the performance of branch predictors.
    2. Write the C++ source code of a new type of branch predictors interited from L-Tage. Validate different implementations and evaluate the performance of prediction correct rates.
    3. Develop research capability and interests.

Projects

- **Capstone Design Project - Vehicle Simulation Platform On Android**:
  - Sponsered Sponsored by Intel, PNP China. Here is the link.
  - Design and build an Android platform to improve in-vehicle software development productivity.
  - Provide utilities like GPS recording, fake location replaying and fake movements generation.
  - Test and validate the platform. Tailor it according to sponsors need.
- **Distributed Computing & Data Mining - Million Song Dataset**:
  - Exploit open-source distributed computing (Apache™ Hadoop) to analyse the entire 280GB dataset.
  - Extract the data in `.btf` by a customized storage plugin for Drill.
  - Apply data analysis on the artist locations and music style. Document the findings.
- **Operating Systems - Thread Library, Pager, File Systems**:
  - EECS482 class projects with team size 2. Pass all test cases.
  - Implement a C++ multithreading libary given hardware interface .
  - Implement a pager for memory management.
  - Implement a multiple-user, tree-structured file system.
- **Computer Architecture: Microprocessor Design**:
  - EECS470 MDE project with team size 4.
  - Design and Implement a 3-way-superscalar R10k pipeline microprocessor using System Verilog.
  - Validate and systhesize the processor architecture.

Programming Skills

- **Languages**: C/C++, Python, Javascript, Java, R, Bash, SQL, Matlab, Mathematica, System Verilog.
- **Technologies**: Hadoop ecosystem (Mapreduce, Drill, Spark), React, Flask, Android Programming, FPGA Programming, LaTeX.