Timothy A. MacPherson

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OBJECTIVE

Obtaining a full time offer starting in the summer of 2017. Specifically interested in operating systems, computer architecture, and system software.

EDUCATION

University of Michigan – Ann Arbor May 2017
Major: *Computer Engineering* GPA: 3.97/4.00

WORK EXPERIENCE

Amazon Software Development Engineering Intern May 2016 – Aug 2016
AWS, S3 Request Persistence
- Designed and implemented metric collector running on all storage hosts, which, when queried, would respond with vital health and performance metrics for a particular host
- The resulting data allowed the storage team to better decide which hosts to place objects on

EECS 370 Instructional Aide Jan 2016 - Present
Computer Organization
- Led Discussion section, held office hours, developed project specifications, tests, and homework

General Motors May 2015 – Aug 2015
Powertrain Engineering Intern
- Worked on Multidisciplinary Design team to design and execute an experiment to optimize the efficiency of various transmissions with respect to temperature
- Provided MATLAB expertise to the team, and designed tools, including user interfaces, to efficiently process, in MATLAB, the large amount of data received from tests

MathWorks, Inc. May 2014 – Dec 2014
Consulting Intern
- Created a working prototype by the end of the summer
- Gained an in depth understanding of Automotive SPICE and knowledge of best practices when implementing Model Based Design

COURSE WORK

Design of Microprocessors – Designed embedded systems application in semester long project involving extensive lab work using ARM and C to program an embedded target — Jan 2016 – April 2016

Web Databases and Information Systems – Designed and implemented website using MySQL, Python, and JavaScript — Jan 2016 - April 2016

Computer Organization – Simulated a simple processor in C, covered pipelining, caching, and virtual memory — Sept 2015 – Dec 2015

Algorithms and Data Structures – Used C++ to implement efficient algorithms, while choosing the most optimal data structure for the application. — Sept 2015 – Dec 2015

EXTRA-CURRICULARS

Eta Kappa Nu (HKN) EECS Honor Society Vice President — May 2016 – Present
Michigan Rollerblading (M-Blade) Co-founder and Secretary — Jan 2015 – Present

AWARDS

James B. Angell Scholar
William C. Ford, Jr. Scholarship Recipient
William J. Branstrom Freshman Prize