William M. Dignazio
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Education

- **Rochester Institute of Technology - New York** — rit.edu
  Undergraduate Computer Science Student — Aug. 2011 - Present
  - Expected Graduation Date: June 2016
  - Core Courses:
    - Computer Organization
    - Computer Science Theory
    - Concepts of Parallel & Distributed Systems
    - Data Communications

Skills

- Languages: Assembly (x86, MIPS), C, Java, Julia, Python
- Tools: Autotools, CMake/Make, Emacs, Git, LaTex, Subversion, Vi/Vim
- Concepts: Lockless Design, Parallel & Distributed Systems, Systems Programming
- Platforms: Hadoop, OpenMP

Professional Experience

- **RIT** — github.com/WillDignazio/hrfs
  Research Assistant — October 2014 - Current
  - Assistant to Distributed Systems professors at RIT
  - Research into performance implications of block replication
  - Implementation as a drop in replacement of HDFS
  - Independent work and management accompanying studies
- **Exablox** — exablox.com
  File System Performance Intern — June 2013 - January 2014
  - Tuned and optimized our object-based file system
  - Researched and worked on lockless hash table implementation
  - Worked with various FUSE based mechanisms and third party libraries
  - Developed Octeon hardware interfaces for our file system
  - Rendered statistics and generated benchmark marketing data
- **Information and Technology Services** — rit.edu/its
  Infrastructure Engineer — June 2012 - January 2013
  - Handled software maintenance and feature tickets for in house applications
  - Dealt with critical data, and university requirements
- **Newstex** — newstex.com
  Web Programmer — March - May 2012
  - Worked with cloud applications, including Boto and Botoweb.
  - Designed and implemented data mining utilities for LinkedIn, Google Plus, and Twitter.

Online Presence

LinkedIn: linkedin.com/in/slackwill
Githhub: github.com/WillDignazio
Blog: willdignazio.com
Twitter: twitter.com/WillDignazio

Projects

Available on github.com/WillDignazio.

- **SOS (Sandbox Operating System)** C
  - Open Source Kernel: Formally called "Foundation", it is a microkernel built off the specs provided by the Intel x86 Architecture manuals, and various online wikis.
  - Most hardware will support the system, being that its native architecture is x86. Recent design changes that have yet to be implemented allow portability to other architectures, such as ARM.
- **Atlas** Assembly
  - Intel Architecture bootstrap binary, boot arbitrary C or C++ code linked against it. Allows for quick system development, and simple x86 embedded device coding.
  - Supports 16 and 32 bit operation, features simple graphics library for debugging and standard output.
- **slackbot** C
  - A virtual bot designed to administrate our IRC channels, giving the proper users automatic administrative access, and guests restricted access.
  - Integrates with LDAP to identify users, as well as connects and operates over SSL for secure authentication and data gathering.
- **asmblog** Assembly
  - Blog platform written in NASM (Netwide Assembly, designed for use on 64-bit x86 operating systems.)
  - Uses FCGI and and custom routines to serve web content, can be used in tandem with any web server, my server hosts a build of asmblog with the NGINX web server.
- **PAGEFAULT** Printed Content
  - Floor research and development journal, focusing on member project development and design.
  - Posted on a bi-weekly basis, with regular submissions, averaging 3 posts per release.