Jianing Liu

http://welkinblue.github.io

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EDUCATION

VANDERBILT UNIVERSITY

B.E. in Computer Engineering

Expected May 2016 | Nashville, TN

Cum. GPA: 3.87/4.00

School of Engineering

Dean's List (All Semesters)

LINKS

SOCIAL

Github:// **welkinblue**

LinkedIn:// **jliu94**

PROJECTS

Flyin| https://goo.gl/Ii2uI5

smacproject.org| https://goo.gl/wy5o2x

SMAC-IRP| https://goo.gl/P75WAi

COURSEWORK

UNDERGRADUATE

Programming and Problem Solving

Program Design and Data Structures

Intermediate Software Design

Computer Architecture

Web Programming

Operating Systems

SKILLS

PROGRAMMING

Over 5000 lines:

Java • C++ • JavaScript

Over 1000 lines:

HTML • CSS

Dabbled in:

C • MatLab • Python • MIPS

PHP • LaTeX

TOOLS

Git • Jekyll • Docker

SUMMARY

Artistic Computer Scientist interested in Software Engineering, Web Development, Computer Networks, Security and counting.

RESEARCH

VANDERBILT STORM LAB | Undergraduate Research Assistant

June 2014 - Present | Nashville, TN

- Optimized a radio communication program for SMAC, an open source architecture of medical capsule robot research and development
- Set up a microcontroller coding environment in uBuntu 14.04 on a Raspberry Pi
- Received a stipend from NSF REU as a supplement to Award #1239355
- Currently configuring a Wi-Fi module with NodeLua for eSMAC project

PROJECTS

WALK-ALL-OVA | Senior Design: An Indoor Positioning System

Sept 2015 - Present | Nashville, TN

- Lead a team of four, sponsored by Metova, Inc
- Currently writing a web app that updates and broadcasts the locations of Bluetooth Low Energy devices with Phoenix framework

FLYIN | A Web App for Flight Plan Creation

Aug 2015 - Nov 2015 | Nashville, TN

- Developed client-server interactions (login, plan editing, etc) with NodeJS
- Managed data storage and caching with MongoDB and Redis
- Implemented a REST-ful API for fetching tiles for the flight map client

eSMAC | A Modular Robotic Toolkit for STEM Education

June 2015 – Aug 2015 | Nashville, TN

- Built a GitHub project page smacproject.org with Jekyll and Bootstrap
- Collaborated to create an iOS BLE app for robot motion control
- Improved SMAC-IRP, a serial port terminal Chrome app
- Co-authored and revised a paper: *eSMAC: an Affordable Modular Robotic Kit for Integrated STEM Education* (conditionally accepted by IEEE RA Magazine)

BAXTER THE MASTER CHEF | A Robotics Project

Oct 2014 - Dec 2014 | Nashville, TN

- Wrote a Python program for a robot "Baxter" to cut ham into specified pieces

HONORS & AWARDS

2015	Vanderbilt University Summer Research Program Stipend
2014	Paul Harrawood Honor Undergraduate Engineering Scholarship

SOCIETIES

2014-Present	Tau Beta Pi Engineering Honor Society	Member
	Eta Kappa Nu	Secretary
	Engineering Ambassadors Network	Ambassador
	- Teach middle and high school students basic science concepts	
2013-Present	Society of Women Engineers	Member
	Vanderbilt History of Art Society	Member