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EDUCATION

Nashville, TN	**VANDERBILT UNIVERSITY**	**Fall 2014 – Spring 2018**

B.S in Computer Science, May 2018. GPA: 3.77/4.00. In major GPA: 3.89/4.00
B.S in Mathematics, May 2018. GPA: 3.77/4.00. In major GPA: 3.56/4.00

Coursework: Computer Organizations, Discrete Structures, Program Design and Data Structures, Intermediate Software Design, Algorithms, Linear Optimization, Linear Algebra, Artificial Intelligence, Operating Systems, Statistics, Software Engineering, Compiler Theory, Machine Learning, Cryptography.

ONLINE COURSES

EdX: Introduction to Computer Science and Programming Using Python (*MIT*)
Coursera: Algorithms: Design and Analysis, Part 1 (*Stanford University)*; Algorithms, Part 1 (*Princeton University)*; Machine Learning (*Stanford University)*
Udacity: Android Development for Beginners (*Google); * How to Use Git and Github (Udacity);

WORK EXPERIENCE

Software Engineering Intern	**MICROSOFT CORPORATION**	**May – August 2017**

- Worked with the .NET Core Profiler and Debugger team to develop a tool that can analyze performance changes in the JIT compiler.
- Ran several performance and scenario analysis experiments to detect potential areas of improvement for application start-up times.

Software Engineering Intern	**MICROSOFT CORPORATION**	**May – August 2016**

- Worked with the CoreFX team porting security features from the .NET framework to *.NET Core*, the open source alternative, for Unix systems.
- Added functional tests to ensure compatibility between systems and data consistency and filled respective bugs.

Teaching Assistant	**VANDERBILT UNIVERSITY EECS**	**Aug. 2015 - Ongoing**

- Grade students' code, including debugging, possible optimizations, and style of C++ implementations of different data structures.
- Guide students on algorithmic thinking and implementation methods for basic data structures from high level description to edge case testing as well as use of design patterns and safety checks.

PROJECTS

Nibble – Developing an online social application that allows users to recommend food options in nearby restaurants based on picture reviews and specific applicable filters. (Developed using Android, XML, and Parse, integrates Facebook API)

Makerspace Login – Made a sign on service to track usage of resources and current users in the space to aid mentors manage the space better. Worked mainly as the backend developer (Developed using Flask and React)

Machine Learning Driving Aid – Designed, mocked, and tested a system that can detect different traffic signs and send corresponding events in response using convolutional neural networks and transfer learning coded from scratch in Python.

ADDITIONAL EXPERIENCE AND AWARDS

- **First place team, ACM ICPC Mid-central region, TN Tech site** (**2014, 2015) –** Part of first place team in both university and site regional qualifiers for the International Collegiate Programming Contest.
- **XXV International Olympiad on Informatics (IOI) –** Part of the Colombian delegation for the XXV IOI.
- **IberoAmerican Informatics Competition (CIIC) –** Silver medal in the XVI CIIC and bronze medal in XVII CIIC.

LANGUAGES AND TECHNICAL SKILLS

Proficient: C++, Python
Regular usage: C, C#, Shell
Familiar: Java, Prolog, Racket
Technologies: Docker, Git, GitHub, PerfView

EXTRACURRICULAR ACTIVITIES

Vandy CS – Help with organizing internal contests and problem creation.
IEEE – Working on library implementations for different sensors for with Arduino boards.
Society of Hispanic Professional Engineers
Beta Chi Theta (Service and philanthropy chair) **–** Worked with several organizations around campus in order to bring awareness on heart disease and homelessness both nationally and in the Nashville community.
International student advisory board – Served as a board member, presiding a subcommittee to investigate irregularities on international student's insurance policy costs.

NONTECHNICAL SKILLS

Languages – Full proficiency in both English and Spanish