William J. Markley III

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EDUCATION

UNIVERSITY OF NOTRE DAME — Notre Dame, IN
Bachelor of Science in Computer Engineering, GPA: 3.88/4.00 — May 2018
Tau Beta Pi, Eta Kappa Nu, and Upsilon Pi Epsilon, Dean's List: Fall 2014-Spring 2017, BP Scholar

UNIVERSITY OF NOTRE DAME ROME SUMMER PROGRAM — Summer 2016

EXPERIENCE

AMAZON ROBOTICS LLC. — North Reading, MA
Software Development Engineer Intern — Summer 2017
- Developed a C++ computer graphics library manipulating point clouds and polygon meshes
- Learned engineering best practices and proprietary software development workflow tools
- Collaborated with computer vision, robotic movement, and quality assurance automation teams
- Presented project vision, rationale, and deliverables to key stakeholders and upper management

UNIVERSITY OF NOTRE DAME — Notre Dame, IN
Bioinformatics Laboratory Research Assistant, Dr. Scott J. Emrich — Spring 2016-Spring 2017
- Implemented a suffix tree to sketch genomes and compute corresponding distance matrices
- Utilized distributed and parallel computing to compute the sketches for several large genomes
- Wrote Python scripts to compute Jaccard Similarity of genomes, mask k-mers, and count k-mer matches
- Used Velvet, MUMmer, and Jellyfish bioinformatics software to analyze gene pools

PENSKE AUTOMOTIVE GROUP — Bloomfield Hills, MI
Software Development Intern, Application Development Team — Summer 2016
- Wrote exception handling C# to enable functionality in the most widely used production web application
- Created SQL script to update both the production and development SQL Server environments
- Modified connection strings of Web.config files for all applications in preparation for SQL migration

Information Technology Intern, Application Development Team — Summer 2015
- Developed IT solutions in VBA affecting over 13,000 employees of a Fortune 200 company
- Exposed to Agile Kanban development cycle as well as scoping, requirements, testing and deployment
- Analyzed company data to detect trends and optimize company resources

GOOGLE INC. — Notre Dame, IN
Student Ambassador — Summer 2015-Spring 2016

PROJECTS

IRISH LINK, *Swift, JavaScript* — Spring 2017
- Created an iOS app with a Node.js and MongoDB backend to connect ideators and developers

VALUMODEL.COM, *Python, JavaScript, HTML, CSS* — Fall 2016
- Designed a Linux Apache MySQL Python web application to generate DCF valuations

GUITAR FREQUENCY SPECTRUM ANALYZER — Summer 2016
- Wired circuit to read analog signals and display corresponding frequency spectrum using an Arduino

MARKIT, *C++* — Summer 2016
- Developed a cross-platform desktop application that can open, save, and edit ASCII text

FIGHTING IRISH GAME, *C++* — Spring 2016
- Designed an Object-Oriented Notre Dame Athletics-themed survival game with three team members

BATTLESHIP, *C* — Fall 2015
- Built an interactive simulation of the board game BATTLESHIP with a detailed Graphical User Interface

LEADERSHIP

ENTREPREURSHIP SOCIETY OF NOTRE DAME — Notre Dame, IN
Co-President, Past Chief Financial Officer — Fall 2014-Present
- Invited successful entrepreneurs to speak to club members about their experiences
- Led a workshop on building a mobile application for 20 non-technical students
- Serve as a Board Member on the Entrepreneurship Leadership Council

GENERAL ELECTRIC LEADERSHIP DAY — Notre Dame, IN
Selected Participant — Spring 2016

SKILLS

Languages (Proficient): C, C++, Python, Shell Scripts, MIPS, Verilog HDL, HTML, CSS
Languages (Experience): Java, JavaScript, Swift, SQL, MATLAB, VBA, LATEX
Applications and Systems: UNIX, Git, VirtualBox, Visual Studio, Quartus II, Microsoft Excel, Creo
Hardware: Altera Cyclone FPGA, Raspberry Pi, Arduino Microcontroller
Laboratory Equipment: Oscilloscope, Waveform Generator, Logic Analyzer, Digital Multimeter, Soldering Iron