bennett.bernardoni@gmail.com
(630) 877-2403

Bennett Bernardoni

Portfolio: bbernardoni.com
github.com/bbernardoni

Education

Batavia High School Class rank: 1
Graduated with Highest Honors *August 2011 - May 2015*

University of Illinois Urbana-Champaign GPA: 3.88
Bachelor of Science in Computer Science *August 2015 - Expected May 2019*
Minor in Electrical and Computer Engineering, and Music

Work and Leadership Experience

Argonne National Laboratory Lemont, IL
Research Aide *Jun 2017 - Aug 2017*

- Designed an algorithm for using a remote RAM pool to enable in situ processing.
- Performed several experiments to test the algorithm's effectiveness.
- Submitted a paper to the ISAV 2017 workshop as part of the SC17 conference.

Genesis Automation St Charles, IL
Software Developer *Jun 2015 - Jan 2017*

- Programmed drivers and state machines to control the operation of the automation equipment.
- Designed and implemented various applications to improve efficiency such as easier computer installation, an improved label printer, and a machine IO code formatter.
- Worked with members of the sales department to develop macros for commonly used spreadsheet templates and several web applications to replace their paper versions.
- Designed a method for the machine's code to compile and execute DLL scripts.

Robotics Clubs (FRC Robotics & iRobotics) Batavia, IL & Urbana, IL
Programming Lead *December 2013 - Present*

- Hosted programming sub-team meetings and developed training material for new members.
- Wrote the software architecture to section the code into individually assignable segments.

Skills

Complied Languages: C++, C, Java, C#, GLSL, Haskell

Interpreted Languages: Python, R, Matlab, SQL, PHP, JavaScript, Batch, Bash, Lua, Visual Basic

Low-Level Languages: x86 Assembly, Z80 Assembly, MIPS Assembly, 6502 Assembly

Markup and Hardware Description Languages: Latex, HTML, Markdown, Verilog

APIs: MPI, OpenMP, Charm++, SFML, OpenCV

Environments: Linux, Git, Unity, Arduino, Make, CMake, Android, Visual Studios, Pure Data

Software Tools: Eagle, SolidWorks, Autodesk Inventor, Audacity, MuseScore

Independent Projects

Swerve Drive Demonstration Game *C++, Java*

- Developed a Java game to demonstrate the functionality of a drive system constructed for FRC robotics. Presented playable demonstration at a competition to passersby and released it on the FRC forums.

Glory *Unity, C#*

- Worked with a team of 3 to make a 3D wave based survival game in Unity for a 12-hour gamebuild-a-thon with the theme of Glory. Created player progression system, audience animation, and enemy design and AI.

1D *Java*

- Constructed a graphical engine that rasters a 2D world to a 1D viewport featuring z-buffering and shaders.

Various Puzzle Solvers *C++, Java*

- Designed and wrote several complex algorithms to solve puzzles such as a Rubik's Cube, a minesweeper variant, and a game of Tetris.

Math Program *Z80 Assembly, TI-BASIC*

- Created a math program for the TI-83+ to complete math homework faster. Ported to Z80 assembly to improve operational speed and add features not previously possible.