Kevin D. Puetz

Education

Degree	**Bachelor of Science in Computer Engineering**	
University	**University of Illinois at Chicago**	Chicago, Illinois
Period	**August 2014 — December 2017**	
Awards	**Dean's List Fall 2014**	
	ABET accredited program	

Skills

Programming Languages	C, C++, Python, MIPS assembly
RDBMS	MySQL
Hardware Description Languages	Verilog & VHDL
Software	Quartus Prime, ModelSim, Cadence Virtuoso, MathWorks MATLAB, Git, Microsoft Office, Inductive Automation Ignition™, GP-Pro EX HMI
Operating Systems	Microsoft Windows, Linux, macOS
Microcontrollers	Arduino Uno & HCS12

Experience

Period	**July 2017 — September 2017**	
Employer	**MacLean-Fogg Company**	Mundelein, Illinois
Supervisor	**Richard Mellor**	
Job Title	**Controls Engineering Intern**	

- Used Python and Ignition™ to create documentation explorer application with graphical user interface
- The Python application was used by the maintenance team to navigate the machine documentation file server
- Upgraded original Nedschroef forming machine sensor gauges to display on a Proface HMI
- Programmed HMI using Ladder Logix
- Updated schematics with design changes using AutoCAD

Projects

Title	**Q.W.I.C. Passive Iventory Weight Scale**	
Organization	**Lakeview Pantry**	Chicago, Illinois

- Worked in team of four to provide a prototype for a scaleable food inventory weighing system
- Designed and constructed food service compatible platform using aluminum extrusion and ABS plastic
- Programmed Arduino Uno using C++ in order to display weight on an LCD screen and record results to an SD card

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Projects (Continued)

Title **Microcontroller Labs**
Class **Microcontroller Based Design**

- Programmed HCS12 microcontroller using Embedded C with CodeWarrior development suite
- Used SPIO and shift register to transmit data for output on a LCD screen
- Allow for user input to be entered using a matrix keypad
- Matched voltage level from photodiodes and thermistor to accurate and meaningful values

Title **Sudoku Solver**
Class **Data Structures and Discrete Mathematics I**

- Developed C program to solve 9x9 sudoku puzzles
- Modeled sudoku puzzle as boolean satisfiability problem
- Used MiniSAT solver library for SAT solver

Title **Simple CPU**
Class **CAD-Based Digital Design**

- Design and implement simple CPU in VHDL using Quartus Prime
- CPU was able to add, subtract, multiply, divide, and output a fibonacci series
- Tested and verified design using a testbench with ModelSim

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