

# Brice Vadnais

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## Campus Address

University of Hartford  
200 Bloomfield Avenue  
West Hartford, CT 06117  
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## Permanent Address

1071 South Drive  
Merrick NY, 11566  
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**Objective:** Pursue a full-time position in a computer engineering, electrical, or computer science related field.

**Education:** **B.S. in Computer Engineering (ABET) and a Minor in Computer Science**

University of Hartford, West Hartford, CT  
GPA: 3.70 / 4.0

Anticipated Graduation Date: May 2018

**Honors:** Dean's List  
President's List

Fall and Spring: 2014, 2015, 2016, 2017  
Fall: 2014, 2017; Fall and Spring 2015, 2016

**Relevant Courses:** System Design and Implementation  
Simulation and Rapid Prototyping  
Microprocessor Applications  
Data Structures

Database Systems  
Computer Architecture  
Computer Networks  
Computer Operating Systems

**Work Experience:** **Critical National Infrastructure (CNI) Intern**, PSEG LI, Hicksville, NY *June 2017 – August 2017*  
Built a web application using ColdFusion to track repairs being used in the field and the state of completion. Assisted CNI group with server maintenance and tracked UPS backups.

**Subway Lead**, Aramark, Subway, University of Hartford, CT *Fall 2016 – Fall 2017*  
Ensure that students perform their roles properly, as well as helping out as necessary on the line to guarantee a smooth operation.

**Key Projects:** **8-bit FPGA Microcontroller**  
Capstone project. Designed a custom 8-bit microcontroller to interface with peripheral devices over serial. Simulated and Tested using Xilinx ISim and instructions loaded to ROM. Bootloader to load different programs as necessary. Implemented onto a Spartan 6 FPGA.

### **Instruction Set Simulator and Assembler**

A program built in Python to simulate an instruction set for my custom microprocessor. Built an assembler on top to convert files to s19 machine code.

### **Design, Simulation, and Implementation of Equalizer**

Designed an 8-band equalizer with second order band pass filters. Simulated using PSpice and implemented on breadboard.

### **Design, Simulation, and Implementation of an 8-bit Data Latch Memory Module**

Designed a memory module for a microcontroller in PSpice and designed a 2-layer PCB to implement it.

**Technology Skills:** OrCAD PSpice Capture | Allegro AMS Simulator | Cadence Software Suite | Python | Java | VHDL | SQL | Bash Shell | Linux | Windows | Xilinx ISE | Xilinx ISim | Altera Quartus Prime | ModelSim-Altera | Microsoft Word | Microsoft Excel | Sublime Text | Netbeans IDE | Git | Allegro PCB editor | 2 and 4 Layer PCB Design | MATLAB | C++ | Soldering

**Technical Experience:**

### **Computer Building**

Built and constructed computers for personal use and for friends. All started successfully and have worked consistently.

### **Lab Equipment**

Very familiar with much of the equipment in an electrical lab. Such as: Oscilloscope, Digital Logic Analyzer, Digital Pattern Generator, and Variable Power Supply

### **Digital and Analog Circuit Design**

Fully capable of designing circuits of digital, analog, or mixed components for various uses.