

# Charles Wilkin

## EDUCATION

### **Pennsylvania State University**, Middletown, Pa. — *B.S. in Electrical Engineering*

August 2018 - Current

Graduation in May of 2020.

### **West Chester University**, West Chester, Pa. — *B.S. in Physics*

August 2015 - May 2018

Degree requirements completed; diploma to be awarded upon completion of Electrical Engineering B.S.

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## EXPERIENCE

### **Universal Machine & Engineering Corp.**, Pottstown, Pa. — *Electrical Engineering Intern*

Summer 2019

UMC designs and builds custom machinery for industrial automation.

- Created and edited the electrical schematics and control panel layouts for several large machines using AutoCAD 2020.
- Worked with coworkers to program an Epson 3-axis robot in SPEL+7.0.

### **Vinegar Hill LLC**, Chester Springs, Pa. — *Co-founder*

Jan 2018 - PRESENT

Vinegar Hill LLC is a small meadery consisting of five young students and professionals, founded to gain entrepreneurial experience.

- Significant experience brewing malt and brewed beverages in a sanitary environment, and navigating the state licensing process.
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## PROJECTS<sup>1</sup>

- The Inebriator - An automated bartender.
- A self-stabilizing 250 class racing quadcopter.
- Several custom desktop PCs.
- JudgementBot - A selfie-rating convolutional neural network.
- Gooba - An asynchronous neural network with adaptive architecture.
- Busyboredom.com -- A portfolio website using rust and webassembly.<sup>2</sup>
- GetOffTheRoad -- A hackathon team project to keep drivers informed.
- A variable 5000 volt power supply for EAP actuators.\*

\*Work in progress

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GLENMOORE, PA 19343  
██████████ (Mobile)  
██████████ (Home)  
██████████ (Preferred)

## SOFTWARE

- AutoCAD Inventor. (300+ hours)
  - AutoCAD 2020. (300+ hours)
  - Matlab, Simulink. (300+ hours)
  - Arduino. (200+ hours)
  - Kicad, Qucs, Pspice, LTspice. (5+ small projects)
  - MySQL, MongoDB. (5+ small projects)
  - Tensorflow. (10+ small projects)
  - C++, Rust, Python 3. (50+ small projects)
  - Git Version Control. (50+ small projects)
  - Microsoft Office Suite. (7+ years)
  - LaTeX. (20+ papers)
  - Linux Command Line. (5+ years)
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## SKILLS

- Speaking to both large and small audiences.
- PC building and maintenance.
- Soldering and breadboard prototyping.
- Business leadership and event planning.
- Self-education and problem solving.
- Safe conduct in physics and chemistry laboratories.

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<sup>1</sup> <https://github.com/busyboredom>

<sup>2</sup> <https://busyboredom.com>