

# Evan Shebel

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<https://ews6.github.io/portfolio/index.html>

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## Education

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University of Maryland Baltimore County, Baltimore Maryland, ABET Accredited

*Expected* B.S. Mathematics, **December, 2017**

*Graduate* B.S. Mechanical Engineering, 2015 (*Junior/Senior GPA 3.06*)

## Academic and Technical Skills

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- ❖ Robust experience using SolidWorks and Inventor.
- ❖ ASME Y14.5
- ❖ Experienced with Matlab, Python, LabView, Arduino
- ❖ Proficient in Microsoft Word, Excel, and PowerPoint
- ❖ Experience with basic machine shop tools i.e. manual mill and lathe
- ❖ Completed an *Earlbeck Gases and Technologies* 40-hour class on the fundamentals of GMAW, GTAW, SMAW, and oxy-fuel welding

## Electric Motorcycle Design Project

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Shebel, Evan. 2016. *Electric Motorcycle Frame* U.S Patent Application 62/351,276, filed June 16, 2016.

- ❖ Submitted a provisional patent. Cost and time prevented me from being able to convert the application to a non-provisional patent. More information about research and its functions are available on my website [here](#).
- ❖ The purpose of the project was to become proficient in CAD modeling. The software I used was SolidWorks and Inventor.

## Capstone

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- ❖ Worked among a five person team to redesign a quad rotor frame UAV for [UAV Solutions](#).
- ❖ Aimed to achieve an increase in portability by having the frame fold to a volume small enough to fit into a police cruiser's trunk.

## Matlab/Python

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- ❖ Frequently made use of Matlab in courses for my engineering major.
- ❖ Matlab sample code to use the gauss-seidel method to solve system of linear equations.
- ❖ Decision Structures, File I/O, Recursion, Dictionaries, Functions, Classes.
- ❖ Python sample code to play the minesweeper game that is updated using recursion.

## Arduino/Lab-View

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- ❖ Controls Lab project used the Arduino as a way to implement a control system. The project involved a throttle (potentiometer), H-Bridge Stepper Motor Driver, DC brushed motor, planetary gear set, and eccentric mass (magnet) that determined speed by sampling data from a fixed hall-effect sensor. The project was run through Lab-View to collect the data.
- ❖ The objective of the project was to map a 5V potentiometer to a motor with an unknown rpm range. The speed of the motor would be determined by reading the signal of the hall-effect sensor.

## Work Experience

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<i>UPS – Part time</i>	Burtonsville, Md	<i>Self-employed</i>	Ellicott City MD	<i>Seashore Ace Hardware</i>	Stone Harbor NJ
	November 2016- Current	Landscaping	June – Aug. 2011-2012, 2014	Sales Associate, Register, Stocking, Deliveries	June – Aug. 2013