

# Andrew Andrade

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► [andrewandrade.com/blog](http://andrewandrade.com/blog) ◀

## SKILLS AND TOOLS

### SOFTWARE

#### COMFORTABLE WITH:

Python • C/C++ • R • MATLAB

#### FAMILIAR WITH:

bash scripting • HTML/CSS • Java  
Assembly • G-Code • Verilog

#### ROBOTICS / AI:

OpenCV • dlib • scikit-learn • ROS

#### DEV. ENVIRONMENTS:

Windows • Linux/OSX • Android  
ARM Cortex • ATMEGA • Arduino

### MECHANICAL

#### CAD/CAM:

Solidworks • NX • MasterCAM  
Pro-E • MSC Adams • AutoCAD

#### HANDS ON:

Manual and CNC: Mill, Lathe, Grinder  
Welding, Molding, Assembly

### ELECTRICAL

#### DESIGN:

Altium • Labview • Multisim  
Cadence Allegro • OrCAD • Upverter

#### HANDS ON:

PCBa • soldering • ESD Trained  
oscilloscopes • multi-meters

## EDUCATION

### UNIVERSITY OF WATERLOO

#### Mechatronics Engineering

Management Science Option

2011- 2016 (Expected)

Highest Class Rank: 1

## SUMMARY

- Extensive experience in vendor management (ODMs, OEMs, CMs) and material procurement.
- Proficient in solving product design challenges from proof of concept to end of life.
- Multiple award winner in AI, machine learning and robotics research, see [andrewandrade.com/cv](http://andrewandrade.com/cv)

## EXPERIENCE

### MILITIA EDC CO. | (Part Time) Design Consultant May/14 – Present | Canada & Singapore

- Led new Titanium every-day carry product line launch from industrial design to procurement & manufacturing.

### FACEBOOK | Hardware Manufacturing Intern Jan/14 – Apr/14 | USA & China

- Prototyped, tested, manufactured and deployed a harddrive card testing tool in China saving \$1.4 MM / factory.
- Led American, European and Asian vendors to manufacture and assemble data center hardware.
- Led manufacturing of a new server line completing BOM revisions and vendor DOE and gauge R&R design.
- Drove quality issues and vendor rework management at Facebook's data centers around the world.
- Audited factories in China from receiving, assembly, testing, QA, and packout/shipping areas

### PERASO SEMICONDUCTOR | Supply Chain Intern May/13 - Dec/13 | Toronto & Waterloo

- Launched the first antenna product: initial product design, CAD modeling, manufacturing and validation (DFM, DFT).
- Built Peraso's mechanical hardware supply chain from the ground up and created best practices used by company.
- Work led to first product in the market & major contributing factor to company raising \$8 million round.

### INNOVATIVE MEMBRANE TECHNOLOGY | Mechanical Intern Jan/12 - Apr/12 | Toronto

- Prototyped data-driven manufacturing designs and yield improvement of a natural gas filter product.
- Applied statistical process control on manufacturing line increasing quality by 32% and reduced downtime by 8%
- Led materials procurement and economic ordering for new product line (\$600,000 budget).

### CHRYSLER | Summer Student Jun/11 - Aug/11 | Brampton

- Applied lean manufacturing (six sigma) and conducted worker time studies on the production line.

### ALL TYPE MACHINING | (Part time) Designer and CNC Programmer Jun/09 - Aug/10 | Toronto

- Designed machine tooling and injection molds for automotive industry suppliers and various manufacturers

### CANTECH TOOL AND MACHINE CO. | (Part time) Machinist Jun/08 - Jun/08 | Toronto

- Operated manual and CNC milling machines, lathes, surface grinders and various other presses and machines.

## PROJECT AND PATENT

### AUTOBIKE | Self Driving Autonomous Vehicle funded by MIT in Singapore ([smart.mit.edu](http://smart.mit.edu))

- Designed, built a self driving bicycle and mobility on demand platform (think self-driving Uber/taxi).
- Implemented path finding using a multi-heuristic A\* algorithm and monocular computer vision.

### Waveguide adapter plate to facilitate accurate alignment of channel in antenna assembly

M. Fakhrazadeh, A. Andrade S. Jafarlou, B. Lynch, and M. Tazlauanu (Patent Pending)