

# Levi Todes | Curriculum Vitae

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## Education

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- **Northwestern University** **Evanston**  
*Master of Science in Robotics* *Enrolled Sep 2018 – (Expected) Graduation Dec 2019*  
**Coursework:** Machine Dynamics, Embedded Systems, Computational Photography, Robotic Manipulation. (Ongoing)
- **University of Cape Town** **Cape Town, South Africa**  
*Bachelor of Science in Engineering Mechatronics* *Enrolled Feb 2014 – Graduated Dec 2017*  
**Coursework:** Computer Integrated Manufacturing Robotics, Electronic Circuits, Electric Machines Power Electronics, Electrical Engineering Design, Control Engineering, Digital Electronics, Signals and Systems, Dynamics, Thermofluids, Project Management, Professional Communication.

## Experience

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- **Balancell** **Cape Town, South Africa**  
*Interim Job* *May - August 2018*  
Prior to my moving to Chicago for my masters degree, I worked at an engineering startup called Balancell. Their focus is on building 'smart' Lithium Ferro Phosphate Battery Packs for industrial use. My role was to develop test rigs (designing and building circuits and programming micro-controllers) for their equipment and circuits.
- **Bioelectronics and Neuroscience (BENS) Research Group** **Sydney, Australia**  
*Intern* *Nov – Dec 2016*  
I had an internship in the Bioelectronics and Neuroscience (BENS) Research Program at the University of Western Sydney. The projects that I was involved in were:
  - Design and construction of a Piezo-electric sensing board that can determine where on a board a ping pong ball has bounced.
  - Developing the code to control a multi-axial automated camera rig, eventually having the system track a light/sound or movement.
- **Cape Peninsula University of Technology** **Cape Town, South Africa**  
*Practical Training* *Nov 2014*  
I attended a practical training course at the Cape Peninsula University of Technology. I learned to arc weld; to use a lathe machine; design automation with pneumatics; applied metrology; CNC machining; heat tempering and hardening; and CAD.

## Technical Skills

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- **Programming Languages and Software Experience**
  - C, C++, Java, Python, MATLAB, TeX, Mathematica
  - ROS, Altium, LT Spice, OpenCV, Simulink, Solid Works, LabView, Android Studio, Arduino IDE, Linux and Windows Operating Systems, Git
- **Practical Engineering Experience:**
  - PCB Design, Soldering, CAD Design, Laser Cutting, 3D Printing

## Additional Information

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- **Languages:** English (Native), Afrikaans, Hebrew
- **Interests:** Golf, Football, Surfing, Road Cycling, Hiking.
- **Certifications and Achievements:**
  - I was placed on the Dean's Merit List at the University of Cape Town in 2016
  - I received an award for excellence in my first year university computer science class (Python).
  - I have participated and completed the annual Cape Town Cycle Race on six occasions, as well as numerous other cycle races.

## References

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- References available on request, please don't hesitate to ask