

# Levi Todes

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🌐 <https://leto37.github.io/portfolio/>

## Education

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- **Northwestern University** **Evanston, Illinois**  
*Master of Science in Robotics* (Expected) Dec 2019
- **University of Cape Town** **Cape Town, South Africa**  
*Bachelor of Science in Engineering Mechatronics* Dec 2017

## Experience

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- **Balancell** **Cape Town, South Africa**  
*Mechatronics Engineer* May - August 2018  
Engineering startup 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  
Internship at the BENS group at the University of Western Sydney. The projects that I was involved in were:
  - Controlling/programming a multi-axial automated camera rig, tracking a light, sound or movement.
  - Designing a Piezo-electric sensing board that can determine where on a board a ping pong ball has bounced.
- **Cape Peninsula University of Technology** **Cape Town, South Africa**  
*Practical Training* Nov 2014  
Practical training course. Arc welding; lathe machining; pneumatic automation; metrology; CNC machining; heat tempering and hardening and CAD.

## Technical Skills

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

## Notable Projects - Portfolio

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- Line following legged robot. (C)
- Test rig for Balancell circuit (Java, Arduino)
- Sawyer tuning ukulele (ROS, Python)
- Isolating moving object from moving background (OpenCV, C++)
- (Ongoing) Automated ukulele player

## Other Skills and Achievements

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- **Languages:** English (Native), Afrikaans, Hebrew
- **Certifications and Achievements:**
  - Dean's Merit List at the University of Cape Town (2016).
  - Award for excellence in Python (2014).
  - Head boy in final year at school.
  - Completed the Cape Town Cycle Race 6 times.
- **Interests:** Golf, Football(soccer), Rugby, Surfing, Cycling, Hiking, Snowboarding.

## References

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