

ZACHARY LAVALLEE

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EXPERIENCE

July 2015 – Present Emonix (<https://www.emonix.io>) Madison, WI
COO – Product Design and Sales

Emonix Inc. produces a patent-pending IOT calcium monitoring system for commercial water softening systems. Emonix has saved all of its customers >30% of their salt usage, and \$2500/year on average.

- Founded in July 2015 with another UW – Madison student and grew the company to \$100k+ in total revenue.
- Currently negotiating with interested parties about an IP license.
- Designed the hardware components and ran a small manufacturing team to meet production.
- Co-developed the monitoring interface, database and website.
- Won 1st place at the UW Transcend, CS Nest Software, Dvorak Energy Innovation, Madworks Economic Impact competitions and many others.
- Award winner in the U.S. EPA Advanced Septic Nitrogen Sensor Challenge and top 25 in the Wisconsin Governor's Business Plan Contest.

October 2014 – May 2017 Graduate Student Project Assistant Madison, WI
Assistant Engineer

- Teamed with Computer Science graduate students on several projects.
- Built a smart home air vent system and a cloud connected hard drive hub.
- Assisted in the writing and research of two ACM BuildSys conference accepted papers:
Water or Slime? A Platform for Automating Water Treatment Systems
SPOCK: A Sensor Value Prediction and Online Control Algorithm for Building Resource Management

May 2014 – April 2015 UW HSLC Tech Support Madison, WI

- Solved general computer problems for the UW Medical School and accompanying offices.

EDUCATION

September 2012- May 2017 University of Wisconsin - Madison Madison, WI

- Graduated with a degree in Mechanical Engineering
- Chi Psi Fraternity – President
Managed an annual budget of \$200k and orchestrated two philanthropies raising over \$30k.
- Badger Volunteers, worked at the UW Arboretum.
- Volunteer work with Gio's Garden, Boys and Girls Club of America, and others.

September 2009 – May 2012 Saint Louis Priory High School St. Louis, MO

- Student Advisory Committee – Advised the administration on policies and programs.

TECHNOLOGY SUMMARY

- Programming Experience: Java, C, C++, Python, SQL, Swift, HTML, CSS, Javascript and PHP
- CAD Experience: SolidWorks and NX

REFRERNCES AVAILABLE UPON REQUEST

