Adam Lerner

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Work Experience

K&J Magnetics 01/02/17-present

Applications engineer

- Wrote script in VBScript to dynamically draft web-friendly engineering drawings for thousands of magnets
- Wrote scripts in Python and VBScript to model permanent magnets and generate data for web calculator
- Performed finite element analysis (FEA) using both FEMM software and custom written Python code
- Designed and developed website features using VBScript, JavaScript, and HTML/CSS
- Provided technical support for customers in dozens of different industries
- Designed projects showcasing use of magnets, including permanent magnet generators and motors, magnetic levitators, and Halbach arrays
- Drafted SolidWorks models and drawings for new products

SouthCo Counterbalance 06/08/2016–08/24/2016

Shop laborer

- Checked machined parts against engineering drawings using standard quality control tools, including a vision system, electronic height gages, pin gages, and digital and dial calipers
- Operated Haas vertical computer numerical control (CNC) mill to machine 10-20 parts per hour
- Assembled and packaged mechanical counterbalance products
- Entered completed products into company enterprise resource planning (ERP) system

Robert Bosch, GmbH 01/07/2015-05/08/2015

Quality engineering co-op

- Wrote MS Excel macros to automate tracking of quality standard violations
- Collected and analyzed data following Shainin methodology
- Participated in failure mode and effects analyses (FMEA) of various production lines
- Updated documents to comply with new Bosch quality standards

Penn State Dept of Mechanical Engineering 09/08/2013-05/06/2016

Instrument room attendant

- Identified and performed minor repairs on broken equipment
- Assisted hundreds of engineering students and faculty with research and academic projects
- Supervised students using wood shop
- Trained and scheduled new employees during management changeover

Education

The Pennsylvania State University Graduated 05/07/2016

B.S Mechanical engineering GPA 3.68/4.00

Middle Bucks Institute of Technology 2017

Certificate: CNC Machining

Volunteer/Academic Positions

Abington Art Center 03/2018-present

- Volunteer open studio monitor for makerspace

Penn State Lunar Lion Team 09/2013-12/2014

- Wrote and debugged MATLAB program for analyzing data
- Wrote and debugged C software for use in drone flight control system

Penn State Advanced Vehicle Team 01/2013-05/2013

- Designed and fabricated battery pack safety mechanism

Course: Microcomputer interfacing 08/2015-12/2015

- Designed, built, and tested Arduino controlled treadmill that adjusts speed based on heart rate

Course: Design Methodology 08/2014-12/2014

- Designed, built, and tested handheld vacuum cleaner from parts of a drill