# Kurt C. Jacobson

2521 Flair Knoll Ct., Atlanta, Georgia 30345, USA kurt.c.jacobson@gmail.com • (505) 303-1933 • www.kcjengr.com

#### **EDUCATION** Kennesaw State University, Marietta, Georgia, USA

B.S. in Mechanical Engineering Technology

Aug 2013 - Dec 2016

• Cumulative GPA: 4.0 / 4.0

• Focus: Manufacturing, Engineering Graphics

Minor in Nuclear Engineering

Jan 2015 – Dec 2016

• Focus: Radiation Detection and Reactor Thermodynamics

# RESEARCH **EXPERIENCE**

# **Center for Nuclear Studies**, Kennesaw State University

Undergraduate Research Project

Jun 2016 – Apr 2017

- Project: Alpha Radiation Detector Development And Testing Under Various Conditions
- Supervisors: Dr. Eduardo B. Farfan and Dr. Sandip Das
- Focus: Development of a precise and low-cost Chang-Rosenblum type alpha particle detector.
- Presented at the National Conference on Undergraduate Research, University of Memphis, Apr 6-8, 2017

### WORK **EXPERIENCE**

#### Kennesaw State University, Marietta, Georgia, USA

Laboratory Manager, KSU Center for Nuclear Studies

Dec 2015 - Apr 2017

- Managed liquid nitrogen supply for nuclear lab, including ordering and coordinating delivery.
- Maintained five state-of-the-art radiation detectors and all associated equipment.
- Tracked usage and maintained inventory of more then 25 radiation sources.
- Coordinated and ran 4-8 undergraduate reactor simulation labs per semester (Spring, Summer, Fall).
- Teaching Assistant, KSU Department of Mechanical Engineering

Jan 2016 – Dec 2016

- Graded all homework and exams for multiple upper level Mechanical and Nuclear Engineering courses.
- Presented and promoted the Nuclear Engineering lab on multiple occasions to industry and university boards.
- Set up equipment and assisted professors in running the Radiation Detection and Measurement labs.
- Supplemental Instruction Leader, Southern Polytechnic College of Engineering Aug 2015 Dec 2016
  - Pioneered use of Supplemental Instruction (SI) to improve pass rates in upper level engineering courses at KSU.
  - Developed worksheets/presentations and created a website to aid in presenting material to students.
  - Enhanced student engagement, improved grades, and reduced attrition rate within the Strength of Materials courses.

### Tubular Fabrication LLC, Flowery Branch, Georgia, USA

Lead Mechanical Engineer

May 2015 – Aug 2015

- Developed a novel, semi-automatic pneumatically actuated, high precision large-bore chuck.
- Created dedicated software for calculating cut path trajectory and generating NC code.
- Fabricated a functional prototype and tested in production environment.
- Achieved significantly increased accuracy of notches, and reduced cycle times by more than 75%.

#### **AWARDS & SCHOLARSHIPS**

 President's List, Fall 2013 through Fall 2016, Kennesaw State University Awarded each semester for maintaining an overall GPA of 4.0.

2013 - 2016

Dec 2016

- Clarence Arnston Award, KSU Mechanical Engineering Technology Department Awarded for Outstanding Senior in Mechanical Engineering Technology in the year 2016.
- Engineering Technology Student of the Year, Georgia Engineering Alliance Feb 2016

Awarded at the Georgia Engineers Week Awards Gala.

**PROFESSIONAL AFFILIATIONS** & ACTIVITIES

- American Nuclear Society, Professional Member
- Feb 2017 Present Kennesaw Nuclear Society, Vice Present Jan 2016 - Dec 2016 Society of Manufacturing Engineers, Student Member 2016 - Present

**PROFESSIONAL CERTIFICATIONS**  Certified Manufacturing Technologist, Society of Manufacturing Engineers

American Society of Mechanical Engineers, Student Member

Dec 2016 - Dec 2019 Certified SolidWorks Associate, DS SolidWorks Corporation Nov 2014 - Jan 2018

**SKILLS** 

Python, Solidworks, HSMWorks, MATLAB, NI LabVIEW, Microsoft Office

# **INTERESTS & HOBBIES**

Industrial Automation, Precision Machining, Open Source Software, Linux, Woodworking, Hiking

Oct 2015 – Present