

# HENRY HANSEN

412-519-4044 [hhansen@andrew.cmu.edu](mailto:hhansen@andrew.cmu.edu) 5535 Beacon St. Pittsburgh, PA 15217

## Objective

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A summer internship involving mechanical engineering (product design, manufacturing, robotics)

## Education

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**Carnegie Mellon University:** B.S. in Mechanical Engineering expected May 2021

**Taylor Alderdice High School:** Class of 2017 (High Honors)

## Projects

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**Computer Aided Wrench Design:** Designed a wrench using Creo Pro/E and analyzed the design for stress concentrations with ANSYS.

**Mousetrap Car:** Built a vehicle that went back and forth across a course with a team.

**Mopbot Project:** Modified and programmed a robot so that it could mop a room.

**Gravitational Constant Project:** Built an apparatus based on the Cavendish Experiment to measure the gravitational constant.

**Wind Tunnel Project:** Constructed a wind tunnel to measure lift on various airfoils.

## Relevant Coursework

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Statics, Thermodynamics, Fluid Mechanics, Numerical Methods, Calculus in 3-D, Integration and Approximation, Fundamentals of Programming and Computer Science, Engineering Statistics and Quality Control, Differential Equations, Physics I for Engineering Students, Physics II for Engineering and Physics Students

## Experience

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**Carnegie Mellon Information Desk (July 2019 – Present):** Answering visitors' questions.

**Charles Morris Nursing Home (July 2016 – Present):** Assisting residents with activities.

**USA Karate (2013 – Present):** Co-teaching karate class for families.

**Fundraising for St. Jude's Hospital (2014):** Raised over \$2,000 by organizing a Kick-a-thon.

## Activities

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Karate (16 years – Adult Black Belt), Krav Maga (5 years), Kung Fu Club (3 years), Anvil Makers Club (2 years), Japan Culture Club (2 years), Morewood Gardens House Council (1 year), National Honor Society (1 year)

## Competitions

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Martin Luther King JR. Writing Contest (2013): Received Honorable Mention for the essay.  
Japanese Speech Contests (2014, 2015, 2016): Wrote and gave speeches in Japanese.