

# BENJAMIN PIERCE

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## EDUCATION

### Case Western Reserve University

B.S. Computer Science

Aug 2017 – Expected May 2021

Cleveland, OH

- GPA: 3.6
- Coursework: Algorithms, Databases, Data Structures, Intro. Artificial Intelligence

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## WORK EXPERIENCE

### Solar Durability and Lifetime Extension Center

Research Assistant

Aug 2018 – Present

Cleveland, OH

- Research focus is on computer vision applications for materials
- Other duties include solar module fabrication, testing, and analysis

### Peth's Landscaping

Landscaper

June 2015 – Aug 2018

Strongsville, OH

- Summer job as a landscaper, responsible for mulch, planting, mowing, trimming, etc.

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## SKILLS

- Programming Languages: Python, R, Java, C
- Libraries: sklearn, skimage, scipy, openCV, pandas
- Technologies: MySQL, Hadoop, Linux, High Performance Computing, SLURM

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## PROJECTS

### Image Processing on substrate formation on Ni-Al alloys

Used computer vision techniques to quantify substrate growth rate on electromagnetically levitated, molten droplet of Ni-Al. Successfully confirmed theoretical behavior through a purely data-driven approach. Output: two poster presentations, paper in progress

### Unsupervised Machine Learning on electroluminescence images

Used machine learning to identify and classify degradation types in EL images of solar cells in order to impartially separate modes of failure and computationally detect reasons for power loss

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## AWARDS

### SURES Scholar

Awarded grant funding for summer research

May 2019

CWRU SOURCE

### Choose Ohio First Awardee

Recognized for STEM skills and awarded scholarship

Aug 2017

State of Ohio

### Dean's High Honors

Made Dean's list for academic success

Aug 2017-

CWRU