

# Arden Chew

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## Education

### Johns Hopkins University (*Graduating 2019*)

Biomedical Engineering, Computational Bioengineering—B.S.  
Computer Science and Computer Integrated Surgery—Double Minor  
Major GPA: 3.62 (Dean's List 2016, 2017)

## Experience

### Allen Institute for Brain Science

#### *Incoming Deep Learning Intern (Summer 2018)*

Using deep learning (Tensorflow) to recognize EM connectomes,  
medical image processing via opencv and sklearn

### Accuo, Image Guided Needle Placements

#### *Co-founder (2016-Present)*

Developed patented image reconstruction algorithms, integrated  
Arduino software, and led product development and clinical testing  
for novel ultrasound needle guidance medical device

### Center for Sensorimotor Neural Engineering

#### *Machine Learning Intern (Summer 2017)*

Optimized cochlear implant stimulus parameters using particle  
swarm machine learning optimization (Pyswarm)

### Johns Hopkins Neuroengineering & Biomedical Instrumentation Lab

#### *Software Development Assistant (2017-2018)*

Incorporated a supervised deep learning network (Keras) to a virtual  
reality application for prosthetic users to train fluid upper limb  
prosthetic movement by completing virtual tasks

### Johns Hopkins Center for Imaging Sciences

#### *Medical Imaging Research Assistant (2016-2017)*

Developed 3D landmarking software to correct generated surface  
mesh topology of cerebral features

## Projects & Publications

### LastPiece (2017-2018)

[Android app](#) – Board game that includes an  
reinforcement machine learning assisted computer  
player and multi-threading

### Sort2Save (2018-present)

Building convolutional neural net (PyTorch) to  
recognize and sort water bottles from garbage

### VentureWell (2017)

Presentation and Patent Pending – “Accuo: Image  
Guided Needle Placements”

### American Society for Bone and Mineral Research (2015)

*Published Abstract, Presentation and Poster (Second  
Author) – “Cross-Species Analysis in Zebrafish and Rat  
Reveals Conserved Dynamics in Genes Associated  
with Human BMD and Bone Disorders”*

## Activities

### Teaching Assistant

Biomedical Engineering Programming in Python,  
Matlab, and R

Biomedical Engineering Molecules and Cells

### NCAA Varsity Soccer Player

2x Centennial Conference Academic Honor Roll  
Award Winner

Academic All-Region

Chi Alpha Sigma National College Athlete Honor  
Society

### Hopkins Biomedical Engineering Society

### Volunteer at Johns Hopkins Brain Simulation Lab