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

Accuo, Image Guided Needle Placements

Co-founder (2016-Present)

Working on product development, software engineering, hardware engineering, and clinical testing of a novel ultrasound needle guidance medical device—patent pending for Matlab image reconstruction algorithms

Center for Sensorimotor Neural Engineering

Machine Learning Intern (Summer 2017)

Developed machine learning optimization software using particle swarm algorithms (Python) to find ideal parameters for stimulus in cochlear implants

Johns Hopkins Neuroengineering & Biomedical Instrumentation Lab

Software Development Assistant (2017-Present)

Incorporating a supervised deep learning network in sklearn 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 Matlab 3D landmarking software to correct surface mesh topology of superior temporal gyri

University of Washington Neurosurgery

Data Science Assistant (Summer 2017)

Coded statistical analysis tools for pituitary tumor genetic sequences

Projects & Publications

LastPiece - in Beta (2017-2018)

Android app – Board game that includes an unsupervised machine learning assisted computer player and multi-threading

VentureWell (2017)

Presentation and Patent Pending – "*Accuo: Image Guided Needle Placements*"

Orthopaedic Research Society (2016)

Poster and Presentation – "Conserved Dynamics in Genes Associated with Human BMD and Bone Disorders During Zebrafish and Rate Bone Formation"

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

NCAA Varsity Soccer Player

2x Centennial Conference Academic Honor Roll Award Winner

Academic All-Region

Teaching Assistant

Biomedical Engineering Programming in Python, Matlab, and R

Biomedical Engineering Molecules and Cells

Physics & Calculus Tutor for Johns Hopkins Student Athletes

Mentor for Hopkins Biomedical Engineering Society

Volunteer at Johns Hopkins Brain Simulation Lab