(925) 818-7568 | ericyang789@gmail.com | ericyang789.github.io | github.com/ericyang789 | linkedin.com/in/ericyang98/

### **Education**

# Harvard Medical School, Boston, MA

(August 2020 – present)

·Master's in Biomedical Informatics | GPA: 4.0/4.0 | Expected Graduation Date: December 2021

### University of Washington, Seattle, WA

(September 2016 – June 2020)

·B.S. in Bioengineering | Minor in Applied Mathematics | Cum Laude | Departmental Honors | 11x Dean's List Award

## **Highlighted Skills**

### **Programming and Software**

•Python (NumPy, SciPy, Matplotlib, Pandas, Scikit-Learn, Keras, PyTorch) •R (Tidyverse, RShiny, Plotly) •Java •MATLAB •HTML •CSS •SQL •Tableau •Git •Bash •HPC/Big Data (MPI, OpenACC, OpenMP, Hadoop, Spark) •AWS •LaTeX

#### **Data Science**

•Regression (Multilinear, Logistic, Polynomial) •Classification (K-NN, SVM, Naïve Bayes, Random Forest, XGBoost) •Deep Learning •Clustering (K-Means, Hierarchical) •Dim. Reduction (NMF, PCA, t-SNE) •NLP (TF-IDF, BERT) •Databases

# **Professional Experience**

# AI/Data Science Intern, Genentech, Inc.

(May 2021 – present)

·Applying machine and deep learning algorithms to quantify drug exposure-patient response relationship in clinical data

#### **Graduate Researcher**, Massachusetts General Hospital

(January 2021 – present)

Employing traditional and transformer-based natural language processing techniques for radiology report classification

## **Undergraduate Researcher**, Professor Cole DeForest Research Group

(March 2017 – June 2020)

- •Developed the smallest 3D artificial capillary to date (10 µm) with novel tissue engineering methods and mathematical modeling
- •Scripted custom image and statistical analysis software in Python and MATLAB to process large time series blood flow datasets
- •Co-authored 1 peer-reviewed manuscript in Science Advances and presented work at 2 professional research symposiums

**Undergraduate Teaching Assistant**, U. of Washington Department of Bioengineering (September 2019 - December 2019) Served as a TA for 70+ undergraduates in Biomechanics course and received high teaching evaluation given by students (4.7/5.0)

#### Research Associate Intern, Illumina, Inc.

(June 2019 - September 2019)

- Designed and implemented novel surface-based DNA assays to enable multi-sample continuous genomic sequencing
- Analyzed NGS data with in-house software and provided bioinformatics support by scripting image processing algorithms
- •Presented results to senior leadership and advanced successful research for further product development and patent licensing

# Engineering Design Coach, University of Washington College of Engineering

(September 2018 - March 2019)

· Instructed weekly sections in Java and Arduino scripting for 50+ undergraduates in Introduction to Engineering Design course

# Summer Innovation Scholar, CoMotion at the UW and Mary Gates Endowment

(June 2018 - August 2018)

- Developed novel drug delivery nanogel biomaterial intended to release chemotherapeutics in the body with limited side effects
- ·Awarded 2 University research funding/scholarships and presented work at conference to UW faculty and industry leaders

# **Honors and Awards**

Tau Beta Pi Engineering Honors Society (top 20% of senior class in UW College of Engineering)	(May 2020)
Husky 100 (selected as one of UW's 100 most driven and impactful students)	(March 2020)
Husky Empowerment Award (recognized by UW for tackling challenging global health needs)	(April 2019)
2x Buerk Center for Entrepreneurship Prototype Funding Award (UW research funding)	(January 2018 and 2019)
Levinson Emerging Scholar Award (highly prestigious UW scholarship for bioscience research)	(September 2018)
Engineering Design Coach Scholarship (exceptional TA mentoring UW engineering students)	(September 2018)
CoMotion Mary Gates Innovation Scholarship (UW funding for work in in faculty-led startups)	(June 2018)
Hollomon Health Innovation Challenge Finalist (finalist out of 39 at UW health competition)	(March 2018)
Purple and Gold Scholarship (four-year UW undergraduate scholarship)	(September 2016)

## **Publications**

Arakawa, C., Gunnarson, C., Howard, C., Bernabeu, C., Phong, K., **Yang, E.**, DeForest, C. A., Smith, J.D., Zheng, Y., Biophysical and Biomolecular Interactions of Malaria-Infected Erythrocytes in Engineered Human Capillaries. *Science Advances*. *6*, *eaay7243* (2020).