

# ERIC KONG

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## EDUCATION

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### University of California, Los Angeles

September 2019 - Present

M.S. in Computer Science, *in progress*

Overall GPA: 3.96

*Major Coursework:* Neural Networks and Deep Learning, Natural Language Processing / Generation, Advanced Data Mining, Automated Reasoning, Machine Learning for Bioinformatics / Genetics, Quantum Computing

### University of California, Los Angeles

September 2015 - June 2019

B.S. in Computer Science

Overall GPA: 3.96

*Major Coursework:* Software Engineering, Computer Architecture, Machine Learning, Artificial Intelligence, Web Development, Compilers, Bioinformatics, Database Systems, Programming Languages, Algorithms, Digital Signal Processing

B.S. in Mathematics of Computation

Overall GPA: 4.0

*Major Coursework:* Optimisation, Numerical Methods, Real Analysis, Complex Analysis, Probability Theory, Cryptology, Number Theory, Linear Algebra, Image Processing

## EMPLOYMENT

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### University of California, Los Angeles

January 2020 - Present

Teaching Assistant

Los Angeles, CA

- Prepared and conducted discussion sections for undergraduate courses CS 121 (Intro. to Bioinformatics) in Fall 2020; CS 33 (Intro. to Computer Organisation) in Spring, Summer 2020; and CS M151B (Computer Architecture) in Winter 2020.
- Administered and graded Data Lab project, held office hours, answered student questions on forums, proctored exams.

### Mission Bit

June - July 2019

Teaching Assistant

Oakland, CA

- Assisted high school students in Oakland in learning HTML, CSS, and JavaScript for a Web Design Bootcamp, by preparing slides, answering questions, and debugging students' code.

## PROJECTS

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### Sarcasm Detection on Reddit, UCLA, *team of three*. Python.

April - June 2020

Investigated various NLP architectures and implemented a bidirectional LSTM model in PyTorch upon sentence embeddings learned by DISTILBERT to predict presence of sarcasm in Reddit comments, achieving an  $F_1$ -score of 0.819.

### Traditional Animation In-betweening, UCLA, *team of four*. Python.

January - March 2020

Implemented a bidirectional RNN model in Keras (Tensorflow) to predict intermediate frames of animated sequences.

### Haplotype Phasing, UCLA, *team of two*. Python.

January - March 2020

Implemented a modified EM algorithm to impute missing alleles for haplotype data using an overlapping phasing technique, achieving a switch accuracy of 90.9% (the highest in the class) with 20 minutes of computation.

### B-Active, UCLA, *team of six*. MongoDB, Node, Express, Angular.

October - December 2018

Crafted a web application matching users to activity buddies using similarity scores. Worked on front-end (UI/UX design and routing) and back-end (user ratings system).

### MiniJava Compiler, UCLA. Java.

October - December 2018

Wrote a program to compile a subset of Java into corresponding MIPS code in several passes.

## TECHNICAL STRENGTHS

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### Computer Languages

Python, C/C++, Java, MATLAB, HTML, CSS, PHP, JavaScript

### Software & Tools

L<sup>A</sup>T<sub>E</sub>X ♦ Windows, OS X, Linux ♦ Visual Studio, Xcode, Eclipse  
MongoDB, MySQL, Node, Express, Angular

## EXTRACURRICULAR ACTIVITIES

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Tutoring under UCLA's TBP and UPE branches, 2016 - 2018

Tutoring and mentorship for UCLA ACM's Hack School programme, 2017

Mentorship in UCLA IEEE's WATT (Women Advancing Tech through Teamwork) branch, 2016 - 2017

Audition, rehearsal, and performance accompaniment for 30+ musical theatre productions produced by various UCLA student theatre companies, as well as the Department of Theatre, 2016 - present