

Gillian Chu

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Education

Phillips Exeter Academy | Exeter, NH

University of California, Berkeley | Berkeley, CA

High School Graduation: Spring 2016

Undergraduate Graduation: Spring 2020

Coursework: Efficient Algorithms (Current 170 TA), Computer Security (161), Computer Architecture (61C), Artificial Intelligence (188), Computational Biology (176), Probability & Random Processes (126), Advanced Linear Algebra (110), Discrete Math & Probability (70 Reader), Organic Chemistry (CHEM3A), Intro Physics (8A), Machine Learning (189), Operating Systems (CS162), Time Series (STAT153), Information Devices & Systems (16A)

Experience

Software Engineering Intern (Observability/Backend)

May - August 2019

Databricks | San Francisco, CA

- Implemented distributed tracing (Jaeger) for performance analysis and visualization of traces across microservice architecture, used eng-wide
- Built Grafana dashboards to monitor and alert, extra tracing features: logging database SQL queries, stack traces, remote shell command exec.

Undergraduate Researcher

September 2018 - Present

Marshall Lab | Berkeley, CA

- Optimize modelling for how mosquito-borne diseases spread by proving minimal info. loss despite clustering on network landscapes
- Reimplementing probabilistic kernel describing gene drive flow and mosquito movement to reflect changes in landscape clustering
- Redesigning mosquito movement probabilities to include further landscape details (i.e. roads and buildings to inform clusters)
- Using new metrics to analyse the aggregate errors between two time series, where one is of a lower resolution

Moorjani Lab | Berkeley, CA

- Characterizing population admixture event signatures in genomes on the scale of local windows. In particular, exploring existing metrics as well as testing new methodologies for ancestry classification.

Rao Lab | Berkeley, CA

- Survey analysis of algorithms to probabilistically infer phylogenetic trees from various input alignments, in particular exploring why INC is Absolute Fast Converging, but performs less accurately than Neighbor Joining

Software Engineering Intern (Fullstack)

June - August 2018

ConsenSys: Standard Bounties | San Francisco, CA

- Built API feature integration w/ smart contracts and Gitcoin API, accessing Docker management scripts and production on AWS
- Built React.js webapp interfacing smart contracts & distributed file storage (IPFS), integrated custom React component library into NPM module

Office of Intellectual Property & Industry Research Alliance

May 2016 - Feb 2017

System Administrator | Berkeley, CA

- QA tested Apex web portal used by hundreds of researchers in Berkeley & Lawrence National Lab for patent process
 - Managed Salesforce data using Pandas, fuzzy string matching
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Projects

Head of Education | Blockchain @ Berkeley | Berkeley, CA (blockchain.berkeley.edu/education/)

Spring 2017 - Now

- Primary instructor for top student-run class w/ 700 applicants (Blockchain Fundamentals '18), on Blockchain @ Berkeley's executive board, gives lectures, mentors teams: course design, cryptoeconomic research, technical platform design, consensus simulations, zk-Snarks, fungible tokens

Head of Events | ANova @ Berkeley | Berkeley, CA (www.berkeleyanova.org)

Spring 2017 - Spring 2018

ANova | Berkeley, CA Jan. 2017 - May 2018 Events Chair

- Volunteer weekly to teach CS curriculum to under-resourced highschools in the Bay Area, manage a team of twelve
- Started and hosted three hackathons with 100+ attendance and 10+ corporate partners including Facebook and Microsoft TEALS.

Shazam | Java, Redux, React.js | github.com/mwhitmeyer/bettershazam

Spring 2019

- Runs Fast Fourier Transform on partial song record and creates signal fingerprint, queries Map database matching by hashes, corrects for noise

DocChain | Solidity, React.js | github.com/gillichu/docchain

Spring 2018

- Collaborating with ER doctors from UCSF, built a decentralized app for Frontier Ventures, generated 3rd party verifiable doctors' licensing info

CitEthZen | solidity, React.js | github.com/citethzen/citethzen

November 2017

- Built at EthWaterloo, cryptographically secure backend contract and decentralized webapp to hold Sai stablecoin tax payments in escrow

Echoless | Python, Twitter APIs, MongoDB | github.com/adityavarshney/echoless

October 2017

- Built at CalHacks 4.0, natural language & sentiment processing to generate quantitative bias metric for political and trending topics on Twitter

Homebound | HTML/CSS/JS, PHP, Google APIs, MongoDB, RescueAPI

March 2017

- Built at Treehacks (Google Machine Learning Prize), recommends pets based on user input, built front-end and integration with MongoDB
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Skills

Programming Languages: Python, Java, C, JavaScript, React.js, Redux, Solidity, Go, Jsonnet (Yaml/Yml), Scala
Software/Tools/Frameworks: HTML, Git, Django, Docker, AWS, Remix, CircleCI, Webpack, Jenkins, Kubernetes, Grafana