CHRISTOPHER GONG

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EDUCATION

University of California, Berkeley — Berkeley, CA

B.A. in Computer Science, Expected Graduation May 2021
Major GPA: 3.72

Selected Coursework: Structure and Interpretation of Computer Programs (Fall 2017), Data Structures and Algorithms (Spring 2018), Discrete Mathematics and Probability Theory (Fall 2018), The Foundations of Data Science (Fall 2018), Efficient Algorithms and Intractable Problems (Spring 2019), Introduction to Artificial Intelligence (Spring 2019), Designing Information Devices and Systems (Fall 2019), Machine Structures (Fall 2019)

EXPERIENCE

Undergraduate Researcher — Berkeley, CA
UC Berkeley Haas School of Business — Jan 2019 – May 2019

Implemented (Python) an analysis procedure, parsing hundreds of thousands of Dow Jones articles in XML and NML format. Utilized Bag of Words, Bigram, Trigram, N-gram, and vector models to calculate similarity. Applied Maps, Sets, Priority Queues and created an original Linked List class to optimize article analysis, while working directly with Professor Anastassia Fedyk and applying methods from her published paper "When Can the Market Identify Stale News?"

Jr. Software Developer — Cerritos, CA
L3 Networks — Sept 2016 – June 2017

Led 3-person team to develop cross-platform software to detect patterns in log files; correlated patterns to events and cloud-based storage and notification through Microsoft Azure and Elastic Stack. Reduced workload by several man-hours per week with automated notification for suspicious activities. Used ASP.NET and SQL Server on Linux and Windows environments.

EXTRA-CURRICULARS/PROJECTS

Lyrix — Jun 2019 – Aug 2019
Poetry Rhyme Assistant Web Application

Created a multi-syllable rhyme generator to assist in writing poetry or song lyrics. Built in Python on the Flask web framework, using the pronouncing dictionary from NLTK, and includes total user account functionality. Lyrix stores all rhymes in a SQL database, and queries matches through syllable count and word-end pronunciation.

Hungry — May 2018 – Oct 2018
Restaurant Recommender Mobile Application

Developed a personalized restaurant recommender application and algorithm, utilizing Google's mobile UI framework, Flutter. Maps a user's preferences and each restaurant (data from the Yelp API) as points, and provides recommendations based on the shortest Euclidean Distance between user and restaurant.

Computer Science Mentors — Jan 2019 - Present
Senior Mentor for CS70

Teaching two hour-long sections per week on CS70 (Discrete Mathematics and Probability Theory) to a group of students, creating personalized instruction for each student. Created mock-exam material and advised other mentors. Topics include Graph Theory, Modular Arithmetic, Cryptography, Probability, Random Variables and Markov Chains.

CyberPatriot — Sept 2016 – June 2017
Northrop Grumman Cyber-defense Competition

Competed in a team and placed in the Gold National Division. Coordinated and led bi-weekly seminars about Windows and Ubuntu vulnerabilities to prepare students for competition. Increased membership by 50% over two semesters. Developed curriculum alongside full time Cybersecurity Engineer.

SKILLS

Languages: Java, Python (Expert), Dart, SQL, C (Proficient), HTML, CSS, JavaScript, LaTeX (prior experience)
Technologies and Libraries: Pandas, Git, Bootstrap, Flask, Flutter