Benjamin Wu

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EDUCATION

UC BERKELEY
EEng & Computer Science BS
Aug 2016 - May 2020
Cumulative GPA: 3.125

ACADEMICS

HS Salutatorian | GPA(w): 4.87
SAT: 2290 | ACT: 35
USAMO | National Merit Scholar | IEEE HKN Honor Society (2017 -)

COURSEWORK

COMPUTER SCIENCE
Data Structures | 61B •
Computer Architecture | 61C •
Efficient Algorithms | 170 •
Machine Learning | 189 •
Computer Security | 161 •
Database Systems | 186 •
Computer Graphics | 184 •
Operating Systems | 162 •
Artificial Intelligence | 188 •
Convex Optimization | 127 •

ELECTRICAL ENGINEERING
Signals and Systems | 120
Microelectronic Systems | 105

MATHEMATICS
Linear Algebra | 110 •
Discrete Math and Probability | 70
Probability and Random Processes | 126 •
Combinatorics and Discrete Prob | 174

SKILLS

PROGRAMMING
Fluent in (ordered by proficiency):
Java • Python • SQL • MySQL • LaTeX
Git • C • C++ • C# • Unity • HTML • Assembly

SOFTWARE
Extensive work in:
Word • Excel • PowerPoint
• Apache Spark • OpenMP • TensorFlow

PROJECTS

MEMEFETCHER | Algorithm and Market Designer
Worked in a team to develop an Android app that uses Google Trends API to determine the popularity of Google searches over time and construct an updating market values of memes.

SEE SHARP | Scripting Head | Unity Dev
Created a basic piano in VR on Unity

EXPERIENCE

MATHEMATICS | Head Teacher
Sept 2012 – Present | Gainesville, FL
Taught competition mathematics with a team in topics from Algebra to Calculus. During these self-run summer camps, I prepared material and problems based on the AMC and $MA\theta$ curriculum in a database for these camps and taught for up to eight hours a day. Received county-wide attention with increasing enrollment.

TRAFFIC FLOWS AND ESTIMATORS | UF Research | Prof. Chen
May 2017 – July 2017 | Gainesville, FL
Suggested and then tested performance for different data structures for use in compact counters and estimators to measure internet traffic flows. Worked with Prof. Chen in calculations in proposed uses of virtual architecture, which depend upon bit sharing and clever online encoding and offline estimation. Research funded by NSF.

SUNPOWER DIGITAL DESIGN | Intern
July 2017 – September 2017 | Richmond, CA
Worked in the digital design team to maintain and optimize the company websites in Drupal by catching bugs, adding content, reducing numbers of excessive redirect chains and large JS files, and testing changes made to address these issues, often through implemented modules in Drupal in addition to use of HTML and CSS. Learned the workflow and step-by-step process in JIRA from reporting all the way to UAT.

CS70 DISCRETE MATH INSTRUCTION | Academic Intern
June 2019 - August 2019 | UC Berkeley
Helped create course material and explain concepts such as probability, modular arithmetic, and graph theory to those in any setting.

HONORS

2017	National	Putnam Score: 32
2016	T-1st/250	Mu Alpha Theta National Convention Calculus Individual Exam
2016	2nd/237	Mu Alpha Theta National Convention Calculus Ciphering Exam
2016	T-Highest	ARML Individual Score on Site | 8/10
2016	1st/103	Mu Alpha Theta Nats Calculus Area and Volumes Exam
2016	1st/40	Science Bowl Team 1st Place Regionally | Top 16 Nationally
2015	National	Qualified for USA Mathematical Olympiad
2015	1st/81	Mu Alpha Theta Nats Calculus Limits and Derivatives Exam
2015	Top 1%	American Mathematics Competition | AMC 12B | 132/150
2015	Top 1%	American Mathematics Competition | AMC 12A | 118.5/150
2014	3rd	Future Business Leaders of America Business Calculations Exam
2014	3rd/272	Mu Alpha Theta National Convention Calculus Individual Exam
2014	T-1st/106	Mu Alpha Theta Nats Calculus Limits and Derivatives Exam
2013	Top 1%	American Mathematics Competition | AMC 10B | 136.5/150
2013	Top 1%	American Mathematics Competition | AMC 12A | 109.5/150
2013	1st	Math League Monthly Tournament | 34/36