BRIAN HO

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EDUCATION

University of California, Berkeley, *Berkeley, CA* .... 2016 − 2020
- B.S. in Electrical Engineering & Computer Science (EECS)
- Regents' & Chancellor's Scholar (UC Berkeley's most prestigious undergraduate scholarship)
- Highlighted Coursework: **courses currently taking*
  - Computer Programs (CS 61A)
  - Data Structures (CS 61B)
  - **Computer Architecture (CS 61C)*
  - Discrete Math & Probability Theory (CS 70)
  - **Algorithms (CS 170)*
  - **Microeconomic Theory (ECON 101A)*
  - Info Devices & Systems I/II (EE 16A/B)
  - Linear Algebra & Diff Eqs (MATH 54)
  - **Multivariable Calculus (MATH 53)*

Programming Languages: Python, Java, JavaScript, Solidity (Ethereum), HTML/CSS, PHP, SQL
Tools and Technologies: Git, WordPress, LaTeX, NumPy/SciPy
Languages: Mandarin Chinese (native fluency), Spanish (limited fluency)

EXPERIENCE

Blockchain at Berkeley − Software Developer .... 1/17 − present
- Work with companies to integrate blockchain technology by identifying use cases, building prototypes, and designing solutions
- Currently helping teach the Blockchain Fundamentals Decal (blockchain.berkeley.edu/decal/)
- Helped tackle problem in the pharmaceutical industry with verification, tracing, and identification of drugs through supply chain

UC Berkeley CS 61A/CS 61B − Academic Intern .... 1/17 − present
- Attend weekly labs and office hours to offer assistance with general coursework
- Help students with material and concepts (higher-order functions, data structures, tree recursion, asymptotics, etc.)

The Boeing Company − Advanced Technology/Software Programs Intern .... 6/15 −8/15
- Wrote Python scripts and used cybersecurity tools for penetration testing and network analysis
- Simulated fiber optic telecommunications links and learned about implementing error correcting codes

FIRST Robotics Competition (#3473: Team Sprocket) − Programming Division Lead .... 8/13 − 6/16
- Designed and implemented robot code (i.e. sensors, vision, driving algorithms)
- Worked on developing and hosting web applications for the team (i.e. sign-in app, scouting app, parts inventory database)
- Worked extensively with the electrical team with debugging, wiring, and securing connections

PROJECTS

Provenance (Supply Chain) − brianho.io/provenance − Solidity, Javascript
- Built a general framework for a blockchain-based supply chain management interface that allows for item tracking/tracing
- Helped develop/debug Ethereum smart contract in Solidity and deploy web application using Truffle

BearMaps − brianho.io/bearmaps − Java
- Built a web mapping application using OpenStreetMaps that provides directions from point A to B (similar to Google Maps)
- Used QuadTree data structure for map rastering (zoom), A* algorithm for shortest paths calculations (route search), and tries for location autocomplete

TEDxYouth@DiamondBar Website − tedxyouthdiamondbar.com − HTML, CSS, JavaScript
- Built website for the TEDxYouth event using Twitter's Bootstrap Framework

Connotation Induced Technicolors (CIT) − brianho.io/connotation-induced-technicolors − Java
- Built a natural language processing service that analyzes the mood and semantics of the written word and renders a color spectrum based on the frequency of words/sentences detected that are positive, negative, or neutral
- Used Stanford CoreNLP API for sentiment analysis and generated HSV and RGB spectrums with own algorithms

AWARDS

Eagle Scout, *Boy Scouts of America* 2015
President's Volunteer Service Award, *Corporation for National and Community Service* 2015
14th of 2140, *EasyCTF* 2015
2nd Place, *TeenHacks* 2014
63rd of 3185, *picoCTF* 2014
National Semifinalist, *Open Source Software Development at National TSA* 2014