Billy Zhong

https://billyz.me

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Education

Yale University — *Computer Science and Mathematics (B.S.)* 2018–Present

Expected Graduation: May 2022

CPSC 223 — Data Structures
CPSC 366 — Intensive Algorithms
CPSC 460 — Automata Theory
CPSC 475 — Computer Vision
CPSC 468 — Computational Complexity
CPSC 465 — Theory of Distributed Systems*
ECON 351 — Mathematical Game Theory

CPSC 323 — Introduction to Systems
CPSC 338 — Digital Systems
PHIL 115 — First-Order Logic
MATH 270 — Set Theory*
PHIL 267 — Mathematical Logic*
PHIL 427 — Computability and Logic

MATH 230 — Vector Calculus and Linear Algebra I
MATH 231 — Vector Calculus and Linear Algebra II
MATH 244 — Discrete Mathematics
MATH 305 — Real Analysis
MATH 310 — Complex Analysis*
MATH 350 — Abstract Algebra*

**currently enrolled*

Work

DeepMap — *Computer Vision Intern* 2019

Designed algorithms and benchmarks for lane line feature detection in satellite road images
Implemented such algorithms into accessible, user-friendly tools

Zingbox — *Software Intern* 2017

Programmed a test suite for UI using Python and Selenium
Created database query interface for Splunk

Projects

Chinese Study Tool 2019

Programmed a computer vision application to recognize Chinese characters within PDF images and annotate them within the PDF with their translations
Explored object localization neural networks in contrast to traditional computer vision techniques

Bartending Robot 2019

Designed and constructed a small, portable robot that makes beverages to-order through both physical and web interfaces
Presented in Digital Systems class as an embedded system for final project

Dynosaur 2016-2018

Researched optimization techniques to teach a bot to play the Google Dinosaur Runner Game
Designed a interactive web dashboard to monitor the bot as it learns

Sandwich Lecture Analysis 2015

Created a natural language processing web application that finds pertinent information on college lectures like key words and supplemental texts

Awards

FBLA State Leadership Conference ..... 4th Place, Network Design 2016
USA Computing Olympiad ..... Gold Division 2016
VEX World Championships ..... Judges' Award, Arts Division 2015
HSHacks ..... Top 3, Hardware Hacks 2014

Skills

Python, C/C++, Java, Javascript, OpenCV, Angular, SQL, MongoDB, Flask, Node.js, Git, Bash, LaTeX