

Corey Harrilal

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TECHNICAL SKILLS

- **Languages:** Javascript (ES6), Python, Ruby, Swift, HTML5/CSS3
- **Tools:** Node.js, React, React Native, Ruby on Rails, Flask, MongoDB, PostgreSQL, Xcode, Git, GitHub, Heroku, AWS, D3.js, MATLAB

WORK EXPERIENCE

Stanford University, Prakash Lab | Software Engineer, Contract | Stanford, CA Sep. 2017 - Present

- Collaborated with 5 Stanford Bioengineering researchers and 3 software engineers to develop web and mobile platforms using JavaScript, ReactJS, and Node.js that monitor and map 20+ mosquito species worldwide.
- Utilized Node.js and MongoDB to save and visualize world's largest repository of mosquito sound data from 10+ countries on web using ReactJS and mobile using React Native, helping classify mosquito species with over 74% accuracy.
- Built multimedia service exchange interface using Python with Twilio API integration, and queried results from VectorMap database increasing Abuzz community mosquito sound contributions by more than 33%.

Foldscope Instruments | Software Engineer, Contract | San Francisco, CA Jul. 2017 - Present

- Engineered software that supports 50,000+ members in 135 countries with JavaScript and Node.js. Led team of engineers and collaborated with Manu Prakash, senior TED Fellow, increasing community engagement by ~98%.
- Built web scraper in order to convert 2000+ posts from outdated Wordpress website to contemporary styles on both web and iOS using Node.js and MongoDB saving ~300+ hours and ~\$30,000+ in technical debt.

Teptu 501(c)(3) | Co-founder and Vice President | New York City Oct. 2015 - Present

- Co-founded non-profit that provides mentorship opportunities in STEM and Entrepreneurship for New York high schoolers.
- Managed team of 12 to organize a science competition, where over 300 high schoolers applied.
- Landed sponsorships from Microsoft and WeWork.

EDUCATION

Make School, Product College 2016 - 2017

Y-Combinator backed college for software developers and technical cofounders

Massachusetts Institute of Technology 2011 - 2015

Chemical Engineering

PRODUCTS

Contendify | Backend Engineer | madhur.xyz/contendify | github.com/coreyarch1234/contendify

Web platform for university instructors to create automated, metric-based assignments catered to individual students.

- Delivered full-stack JavaScript web app using MongoDB with self-containing, reusable, testable components.
- Created real-time game engine with Socket.io using Dr. Joe Kim's psychology research at McMaster University.

Tangent | Backend Engineer | madhur.xyz/tangent | github.com/coreyarch1234/Math-Save

Mobile application for STEM students to convert handwritten mathematical equations to beautifully typed digital text.

- Developed custom interface with React Native Camera enabling micro-measurements with > 90% accuracy.
- Architected Node.js backend with Mathpix and KaTeX APIs to convert 800+ raw image data objects to rendered html.

AWARDS

Served as a US Delegate at the 43rd Joint School Science Exhibition in Hong Kong

Co-published a Specialized High School Admissions Test book - Best-Seller on Amazon outranking Kaplan and Barron's