

Nicholas Brown

Software Engineer

nicholasbrown.io
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EDUCATION

Yale University

Bachelor of Science, Physics (2016)

Distinction in the Major

Howard L. Schultz Prize for Excellence in Experimental Physics

EXPERIENCE

Co-Founder and CTO

National Youth Orchestra of China (Jan 2016 – Present)

Grew NYO-China from an idea to the most influential youth orchestra in China.

- Led team of developers and designers to build and maintain NYO-China's web presence.
- Built relationships with world-class artists and institutions and secured media coverage in major outlets, including [China Daily](#) and [The New York Times](#).
- Managed 4 full-time employees, 30 seasonal staff, and an operating budget of 3 Million USD.

Project Lead

Yale Undergraduate Aerospace Association (Oct 2013 – Jan 2016)

Led a group of 4 engineers in designing a one-way laser communication system for a CubeSat in Low Earth Orbit. Previously served as Assistant Project Lead in the design of a 2.4-meter Radio Telescope.

Computational Physics Research Assistant

Yale Particle Theory Group (Jan 2015 – May 2016)

Implemented the Creutz/Hasenbusch demon algorithms to compute renormalized coupling constants through repeated sampling; successfully recovered couplings for single and multi-term actions.

Machine Learning Research Assistant

CERN (May – Aug, 2014)

Performed architectural rewrite of a Top Quark classifier to incorporate Bottom Quark variables; work led to significant increase in classification performance.

PROJECTS

NYO-China Informational Website

Link: www.nyochina.org

Static informational site which serves as the online home of NYO-China, built with Gatsby and React. Previously built NYO-China's 2017 program site, now found at 2017.nyochina.org.

Sentiment Oracle

Demo: nicholasbrown.io/sentiment-oracle

Six classifiers and an API for predicting the sentiment (on a 1 – 5 scale) of strings of English text. Scores within top 5% of Kaggle submissions on the Rotten Tomatoes Dataset.

Slim Overflow

Gallery: nicholasbrown.io/slim-overflow

A question-and-answer web app implementing much of the functionality of Stack Overflow, including user profiles, reputation tracking, and live chatrooms.

Scout

Demo: nicholasbrown.io/scout

A multithreaded web crawler that scouts the neighborhood of a given URL while maintaining a cache of its most similar neighbors. Crawls at an average rate of 30 URLs/second.

SKILLS

Languages: Java, Python, C, Elixir, Javascript, HTML/CSS, Mathematica

Frameworks: React, Falcon, Phoenix, Tensorflow, Keras, PyTorch