

Nachiketa Gargi
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Profile

High School student with a strong interest in programming.

Education

The Nueva School : Class of 2018

Relevant classes: Biology, Physics, Chemistry, Advanced Programming Workshop, Math 3 (Precalculus)

Projects and Accomplishments

Best Overall App at AT&T Smart City hackathon - Fall 2015

Designed and built (in a team of 3) an Android and web app to track Caltrain, using crowdsourced train position data from phones triggered by the SSIDs of Raspberry Pi-generated WiFi networks on trains to determine the train number.

AutoMuse - Fall 2015 - Present

10th grade "Quest" project at The Nueva School. Continued last year's, but used LSTM neural networks for music composition instead, and created a web interface to stream infinite generated music. Built with Python, Keras, Flask, and Numpy. Repo [here](#).

Computer-generated music - Fall 2014 - Spring 2015

9th grade "Quest" project at The Nueva School. Uses Markov chains and to compose music based on other music. Private repo. Built with Python, tkinter, and various MIDI libraries for Python.

Spotify Streamer - Summer 2015 - Fall 2015

Made a Node.js app that used libspotify to add songs to a queue and stream to multiple computers, in sync. Repo [here](#).

Website for Dental Clinic - Summer 2015

Designed a website for a dental clinic. It is mostly static but also enables users to book an appointment. Built with Node.js with Express and Jade on the back-end and jQuery and Materialize.css on the front-end. Private repo.

Built PC - Summer 2015

Built a computer: Ordered parts, assembled, installed OS. Learned about computer hardware and firmware. (in fact, I'm typing this on that computer... :0)

Emeraldia (Minecraft Server) - Spring 2015

Set up a Minecraft server on a DigitalOcean droplet and built accompanying website, with live stats and ability to chat on server. Website [here](#) (note: still a work-in-progress). Built with Node.js, Socket.io, HTML, CSS, Javascript (AJAX mainly)

CamsCTF - Spring 2015

15th place (out of 650+ teams) in the [CamsCTF](#) online computer security challenge.

Stanford ProCo - Spring 2015

Competed at [Stanford ProCo](#) as a member of a three-person team.

Dnnr - Spring 2015

An online web application that helps the user find a restaurant to eat at. Made with [Al Nadel](#) at the HSHacksII hackathon and available [here](#). Built with Node.js, Express and AngularJS.

Hyve - Spring 2015 - Present

A web application (soon to be an Android/iOS app too) that makes it easy to manage clubs at a school. Private repo but available [here](#). Built with Node.js, MongoDB, Express and Materialize.css

Caltrain Pushbullet Notifier - Winter 2014-2015

Using the Pushbullet API, alert users when their train is 15 minutes away. Private repo. Built with Node.js and MongoDB.

Quotidian - Spring 2015

Made a Chrome Extension that displays a random quote with the functionality to read it aloud, copy it to the clipboard, and view the wikipedia page for the author of the quote. [Website](#) and available [here](#). Built with HTML, CSS, and Javascript. All art/logos were made in Photoshop/Illustrator.

NaChat - Fall 2015

Built a PubNub-based chat client for fun. Available [here](#).

Raspberry Pi GPIO API and Android App - Winter 2014-2015

Built a RESTful API to control GPIO pins on my Raspberry Pi. I also made an Android app using Cordova and my API that could turn an LED on and off.

Mo' Meta - Spring 2015

Singlehandedly designed and built a Chrome Extension with accompanying backend that enables users to add custom metadata to Youtube videos that any other user can see. Built with HTML, CSS, Javascript (front-end), Node.js, and MongoDB.

FRC Team - Fall 2014 - Present

Part of the FRC Robotics Team at The Nueva School. Helped with design, CAD, and build. Also made an online "scouting" web application for the team to help gather information about other teams. Source available [here](#). Built with Node.js, Express, and MongoDB.

PicoCTF - Fall 2014

Participated in an online computer security competition, and got [73rd place](#).

Synopsys Science Fair winner - Spring 2013

Won 2nd place in Physics at the Synopsys Science Fair for an experiment on crystallization of supercool liquids. Paper available [here](#).

Science Bowl - Fall 2013 - Present

Member of middle school and high school Science Bowl team. Attended the competition at the National Hispanic University (8th grade) and SLAC (9th grade).

Middle School Vice-President - 2013-2014 School Year

Was elected as Middle School vice-president.

Skills**Technical skills**

Client-side/Standalone: Javascript, jQuery, Python 2 and 3(with tkinter), HTML, CSS, Jade, Handlebars, Cordova/Phonegap, Arduino, Responsive Web Design (Bootstrap, Materialize.css)

Server-side: UNIX shell, DigitalOcean, Bluemix, Redhat, Heroku, Python (Flask), Node.js with Express, MongoDB, SSH, Socket.io

Tools

Advanced Proficiency in Solidworks, Adobe Creative Suite (After Effects, Photoshop, Illustrator, Premier Pro), Logic Pro X, Final Cut Pro X, Autodesk AutoCAD, Adobe Acrobat Pro, MuseScore

Basic Proficiency: Maya, Android Studio, Blender, Unity

OS

Mac OSX, Linux (Ubuntu, Linux Mint, Debian)

Other skills**Music**

Classical Piano: 8 years

Jazz Clarinet: 2 Years

Guitar: 1 year

Music composition

Member of The Nueva School Jazz Ensemble

Sports

Competitive Soccer: 7 years

Was on school basketball team

Varsity soccer team

Other

Basic proficiency in Spanish

Fast learner!