

12th Grade

Advisory: Ali and Terry

App Innovation

Alex C.

Created an app to address problems in the world.

Nueva's Peer Consulting Program

Camille K.

Continued designing Nueva's first peer consulting program.

Mentor(s): Ali McLafferty

Makin' Some Phat, Thicc Beats

Christine C.

Wrote lyrics, composed music, recorded, designed some blips and blops, mixed everything, and put it into the universe!

Mentor(s): Joshua Tazman

WUNDERCAN: WunderList Meets Canvas

Colin F.

Designed app to integrate WunderList and Canvas by Instructive.

Mentor(s): Jen Selby

The Start of My Yoga Journey

Jackie M.

Studied yoga philosophy, human anatomy, Sanskrit, and much more at the Yoga Society of San Francisco ashram. I also began my yoga teacher certification training!

Mentor(s): Briksha Agarwal

Learning How to Teach

Jake L.

Worked with elementary-school students at a tutoring center.

The Spicer Songs: A Seven-Part String Suite

Josh R.

Wrote a 20-minute-long string suite, setting seven poems by Jack Spicer to music for string trio and voice.

Mentor(s): Laurie Antonioli, Daniel Wood, Joan Jenreneaud

A Girl and Her Dragon Pizza: Part 3

Kylie H.

Catered over two dozen events, ran marketing campaigns, and did taxes as I expanded my business: A Girl and Her Dragon Pizza.

Constructing a Metal Coffee Table

Meera S.

Designed and crafted three sliding metal coffee tables.

Mentor(s): George Jemmott, Scott Swaaley

Exploring Norwegian Language and Culture

Nolan M.

Learned Norwegian on Duolingo and studied traditional and contemporary Norwegian culture.

Advisory: Allen and Davion

Studying Kung Fu

Ariana L.

I studied kung fu, qigong, and mental wellness.

Design Exploration

Briana D.

I studied and practiced the art of user-centered design in different media including digital media, wood, paper, and more.

ROV Construction

Carter T.

Designed and constructed an underwater remotely operated vehicle, then took video with the ROV.

Debate and Cranes

Chris C.

Created an origami crane art installation with 1,000 paper cranes, to be sold at the Nueva Auction. Also engaged deeply with every aspect of the Nueva Speech and Debate team.

Mentor(s): Les Phillips

Bringing Mammalian Cell Culture to High School

Conrad S.

Designed and executed fundamental genetic engineering techniques, built curriculum based on these techniques, and presented the course at the Chicago Experimental Biology conference.

Mentor(s): Dr. Trip Sweeney, Luke De

Electronic Music

Jarett B.

Produced a number of electronic-music tracks.

Project Save the Blue

Jenna L.

Save the Blue is a nonprofit organization that helps ocean conservation, specifically shark conservation.

Mentor(s): Mark Erdmann

Interning at the Michelle R. Clayman Institute for Gender Research

Jesse V.

Interned at the institute over the past three years, researching gender inequality.

Mentor(s): Ann Enthoven

Web Development: Learning By Doing

Olivia J.

Worked with middle-school teacher Tom McFadden on a website where users can create their own science raps.

Mentor(s): Tom McFadden

VMD: Art, Design, and Fabrication

Varun M.

Learned and created multiple mediums, projects, and designs, and amassed them in an easy-access portfolio website.

Advisory: Amanda and Veena

Project Save the Blue

Audrey W.

Save the Blue is a nonprofit organization that helps ocean conservation, specifically shark conservation.

Mentor(s): Mark Erdmann

A Ground-up Study of Neural Networks

Avery C.

Programmed a ground-up neural network implementation using entirely my own code and without use of libraries.

Mentor(s): Jen Selby, StackOverflow

Street Art of San Francisco

Celine S.

Photographed San Francisco's street art and graffiti.

Debate

Jake M.

I competed nationally in public-forum debate.

Mentor(s): Les Phillips

Encouraging Conversation at Nueva

Kathryn S.

Helped to organize the festivities on International Women's Day and participated in the College Wellness task force. With these efforts, I attempted to help the Nueva community in setting cultural norms, particularly those involving conversations on complex topics.

Design and Art Exploration

Kian M.

Helped design posters and presentations during my internship at Sephora. Continued exploring digital and physical art throughout the year.

Mentor(s): Courtney Johnson, Tessa Lund

California

Martin R.

Playing music in a high-school band.

Mentor(s): N/a

Inaugural Victor Rivas-Umana Farewell Invitational

Matt S.

Organized, hosted, and created an intramural debate tournament.

Mentor(s): Les Phillips, Kyle Chong, Jasper Ou

Finnish-English Translation

Naomi C.

Worked on translating a short novel from Finnish to English.

When in Korea

Phaedra P.

I lived in South Korea for six weeks last summer and documented my time there.

Machine Learning for Social Good

Zubin A.

I explored different ways one could use machine learning for social good through an online challenge and unorthodox projects.

Advisory: Arta and Yuliya

Building Speakers

Alex P.

Created a custom set of speakers.

Mentor(s): Lazar Lvovsky

CartBandit: The Birth of a Hypebeast

Griffin T.

Researched, purchased, and resold limited-release clothing by programming a speedy Python add-to-cart bot.

Mentor(s): Jake Riggs

A Work in Progress: Poetry Part 2

Jessie K.

The Quest process—and the creative process—is messy, and after many failed attempts to be artistic, poems were written, edited, and compiled instead.

Aeronautics and Aviation Licensing

Jonathan T.

I got a pilot's license and intently studied aeronautical technologies in order to pass the tests.

Mentor(s): SCFC

Math by Art: Math Education in Haiti

Julia R.

Designed and implemented computer-based math and art education in three departments in Haiti.

Mentor(s): Roxane Dimanche

Left, Right, and Wrong: Confronting Problems with Political Discourse

Loren R.

Mentored middle-school students about politics and how to foster mature, fulfilling, and intellectual political discourse that accommodates all kinds of ideologies.

Mentor(s): Carlo Cerruti

Exploring Music and Art

Maddy T.

Made electronic music and experimented with new styles of art.

American Sign Language and Performance

Rachel S.

Researched language processing around American Sign Language as well as continuing interpretation of songs and monologues.

Mentor(s): Maren Nymo

Eat Right. Be Fit. Fight Obesity.

Swetha T.

Published and presented my paper on the socioeconomic disparities of obesity in California at an international scientific conference.

Mentor(s): Dr. Aijaz Ahmed

Debate

Will C.

Researched topics, generated arguments, and both debated and judged in tournaments while working with teammates and BAUDL debaters.

YoniNN: The Premier Neural Network Library

Yoni L.

Created a library for making neural network machine-learning models as an exploration of the mathematics of deep learning.

Mentor(s): Jen Selby

Advisory: Claire and Lindsey

Making DIY Circuit Boards

Austin V.

Designed and tested a method for Nueva to manufacture printed circuit boards (PCBs) in-house.

Peninsula Foodies: A Blog!

Chace P.

Wrote a food blog including reviews of restaurants in San Mateo county and reviews of recipes.

How to Safeguard Against Food Price Spikes

Daniel P.

Researched the effects of global food price fluctuations on domestic markets.

The Theremin

George H.

Built and learned to play a theremin.

Yoga Instructor Certification

Hannah Z.

Completed a 200-hour yoga teacher certification course, and taught weekly yoga classes at Nueva.

Mentor(s): Suzanne Snyder

Writing, Recording, and Production: Taking an EP from Start to (Almost) Finish

Henry P.

Co-wrote, recorded, and produced what will eventually be a seven-song, mixed-genre, through-composed EP.

Mentor(s): Eachother

Becoming a Rescue Diver and SCUBA Exploration

Jill M.

Achieved rescue diver certification for SCUBA diving and practiced dive skills including navigation, buoyancy control, nitrox diving, and night diving.

A Musical!

Marc Y.

Wrote a musical.

Food Cinematography

Natalie G.

Filmed a variety of instructional cooking videos for college students

Angela Watches

Polina L.

Designed a functional face watch with the capability to contact people for help in a subtle way.

Mentor(s): Connie Liu

Advisory: Jen and Rob

The B.Hive

Ananya R.

Taught an eight-week design-thinking curriculum to fourth graders in East Palo Alto, using money raised from my Kickstarter to provide maker materials for the students.

Mentor(s): Connie Liu, Jenn Min, Griselda Ramirez, Christopher Auger-Dominguez, Matt Hengehold. Thanks also to all the people who gave me key insights: (Bev Turnbaugh, Paru Yusuf, Devon Young, Kim Saxe)

Learning to Code

Arielle M.

Learned to code in Python and then created a four-in-a-row game.

Mentor(s): Carl Shan

Forage 'n' Feast

Danny A.

Learned to forage for wild plants and animals to create meals entirely from scratch.

Mentor(s): Jerry Aguiar

Learning Classic Games

Ethan L.

Learned about and practiced playing backgammon and bridge.

Building a Flying Motorcycle: Strap In and Take Off

Jeremy T.

Became a certified paramotor pilot and constructed an electric prototype of this form of personal aviation. Prototyped a form of ground-based transportation that will integrate with the flying device.

Mentor(s): Mark Zinkel, Bob Schneeveis

Developing Temperature Sensors for Sea Turtle Conservation

Matthew M. and Erik M.

Designing, testing and manufacturing 100 temperature and humidity sensors to aid Leatherback Trust biologists in Costa Rica.

Mentor(s): Dr. George Shillinger, Dr. Kristin Reed

Pen Art: Where to Draw the Line

Pooja T.

Studied principles of art, using pen as my medium.

Learning Russian

Victoria T.

Studied the Russian language.

Advisory: Mark

Fourier Analysis and Image Processing

Cole B.

Self-directed investigation of Fourier Transforms in terms and how they can be applied to image processing.

Conner's Neural Network Adventures VI

Conner V.

Cried over my computer and explored novel neural network architectures.

Mentor(s): The Mike Wu, Professor J. L. Selby

Arranging Music: From A Cappella to Cello Choirs

Emily R.

Arranged music for a cappella and cello ensembles.

Fabricating Fashion

Gail R.

Continued my four-year study of fashion by working on sketches and investigating pattern design.

A Modeling Career and Artistic Passions

Jenna K.

Worked as a fashion model in San Francisco with Scout Model and Talent Agency, and explored my passions of poetry and photography.

Mentor(s): Becca Mikesell, Jada Ogden, Ryan Lippert

Fusion Reactor Design

Joseph J.

Designed an inertial confinement fusion reactor.

Maps, Graphs, and Art

Juliette L.

Studied and created a series of maps and other visualizations for geographic phenomena and art history.

Mentor(s): Dr. Maneesh A

VR Game Jam w/ Nathan

Nathan K.

Explored virtual reality-centric game design.

Living History: The Literature of Korean Independence Activists

Thomas L.

Read and analyzed primary source documents (letters and memoirs) written by Korean independence activists, notably An Jung-Geun.

Mentor(s): NO MENTOR.

Lock Picking: Defeating Defenses

Wren S.

Practicing lock-picking skills with a variety of tools and techniques.

11th Grade

Advisory: Ben

A Dislocation of the Elbow Variety

Julia R.

Dislocated my elbow and ventured on the journey of physical therapy.

10th Grade

Advisory: Jen S

An Analysis of the Impact of Weather on Water Levels at Lake Laura

Charles L.

Analyzed and predicted water levels of Lake Laura by comparing past weather, fishing, water quality, and water level data.

Mentor(s): Lawrence Eslinger, Leonard Pon

9th Grade

Advisory: Chris Scott

Five Senses

Sanjana V.

Created drawings that involve all five senses, based on how many notes are in pieces of music.

Advisory: Stephen

Animated Movies are for Everyone

Laura S.

Researched and designed posters for Best Animated Feature winners
