

# Nick Mak

COMPUTER SCIENCE  
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## EDUCATION

### UC SAN DIEGO

B.S. IN COMPUTER SCIENCE  
December 2021 | La Jolla, CA

### R.A. SCHOOL OF THE ARTS

WORLD MUSIC AND DANCE  
Grad. May 2016 | San Francisco, CA

## LINKS

Website:// nmakucsd.github.io  
LinkedIn:// nick-l-mak  
GitHub:// nmakucsd  
FIRST Robotics:// team5700.org

## COURSEWORK

Computer Science in Java and C/C++  
Computer Architecture  
MIPS Assembly Language  
Verilog  
Data Structures and Algorithms  
GitHub  
Unix/Linux Operations

## SKILLS

### LEADERSHIP

Public Speaking • Agile Development  
Community Service • Teaching (3+ years)  
Sponsorship Outreach •

### COMPUTER SCIENCE

Java • C++ • Unix/Linux  
Robotics Programming • Excel • MIPS  
Verilog • Arduino •  $\text{\LaTeX}$

### ENGINEERING

#### MACHINING

CNC | Computer Numerical Control  
Mill • Lathe • Routing  
Welding • Metalworking

#### SOFTWARE

3D Printing  
CAD | Computer Aided Design

### LEADERSHIP ROLES

Associated Student Body  
IEEE UCSD | Project Lead  
Triton XR | Project Manager  
KOTX UCSD | Media Producer  
Robolink | Robotics Instructor  
Hapkido USA | Instructor

## EXPERIENCE

### UCSD IEEE ROBOCUP ANNUAL PROJECT | PROJECT LEAD

October 2019 - Present | UCSD

- Manage team of seven individual to build, program, and design one of six robots to play in international Robocup Robotics Competition.
- Publish paper on robot specifications and documentation.
- Design robot subsystems with Computer Aided Design.
- Program robot using DJI Development Board

### ROBOLINK | ROBOTICS INSTRUCTOR

November 2019 - Present | San Diego

- Teach kids robotics programming and engineering concepts.
- Coach and mentor kids in competition for VEX IQ.
- Program robot using VEX IQ and Arduino kits.

### TAYLOR COLLABORATIONS LAB | ENGINEERING INTERN

May 2017 – July 2017 | San Francisco, CA

- Developed presentation on arthroscopic tool designs used in minimal-invasive arthroscopy.
- Learned and used Computer-Aid Design for part manufacturing.
- Learned and applied G-code (programming language) for CNC machining.

### FIRST ROBOTICS TEAM | MENTOR, FOUNDER, PRESIDENT

August 2014 – December 2017 | San Francisco, CA

- Founded team through school administration, raised \$10,000 to kickstart.
- Managed, lead, and taught a team of 40+ high school students to construct 120lb robots to compete annually.
- Studied and developed skills in Machine Fabrication, Computer Aided Design, Java Programming, Computer Vision, Electronics Engineering, Business Development, Public Relations, Web Developing, Videography, Accounting, Project Management, and Team Management.

## PROJECTS

### FIRST ROBOTS | SOFTWARE DEVELOPER, MECHANICAL ENGINEER

October 2014 – December 2017 | San Francisco, CA

Worked with FRC Team 5700 | SOTA Cyberdragons to manufacture and program 120lb robots, annually to compete in the FIRST Robotics Competition. Concepts like, rapid prototyping, version control, hardware programming were used frequently.

### ANIMATRONIC WIRELESS ARM | PERSONAL PROJECT

June 2016 - September 2016 | San Francisco, CA

Created robotic hand to mimic user's hand positions. The project uses an Arduino + breakout board along with flex sensors on a glove to send wireless signals to a servo actuated arm.

## AWARDS

### FIRST ROBOTICS COMPETITION

|      |                            |                                      |
|------|----------------------------|--------------------------------------|
| 2018 | FRC San Francisco Regional | 2018 Excellence in Engineering Award |
| 2017 | FRC San Francisco Regional | 2017 Imagery Award iho. Jack Kamen   |
| 2016 | Calgames 2016              | 2016 Highest-Seeded Rookie Award     |