

# Andrew Tu



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drewtu2.github.io

## Education

**Northeastern University** | Bachelor of Science Computer Engineering/Science | Dean's List 5/2020

- ❖ GPA: 3.88/4.0
- ❖ Involvement: *NU MONET Research, NUCAR Research, IEEE, MIT Ballroom Dance Team, Toastmasters, Lead 360, Society for Asian Scientist and Engineers (SASE) Mentor*

## Skills

### Programming Languages

- ❖ C++, MATLAB, Git, Javascript, HTML, CSS, Java, Visual Basic for Applications

### Microsoft Excel

## Technical Experience

**Northeastern University Marine Observatory Network** | Undergraduate Research Assistant (NSF REU) 10/2015 – Present

- ❖ Rebuilt and maintained project website
- ❖ Designed and implemented smart buoy and GUI control system using C++ and QT framework
- ❖ *Testbed Development and Performance Evaluation of the TARS MAC Protocol for Underwater Acoustic Sensor Networks*, accepted to OCEANS 2016 Conference
- ❖ *Programming Acoustic Modems for Underwater Networking*, submitted to Embark Undergraduate Engineering Review, First Author
- ❖ Implemented several basic MAC protocols in MATLAB on Teledyne Benthos SM-975 Acoustic Smart Modems

**Northeastern Interactive Clustering Engine** | Undergraduate Research Assistant (NSF REU) 6/2016 – 8/2016

- ❖ *Software-Engineered Library Development to Support a High Performance Machine Learning Visualization System*, poster presentation for 2016 Data Driven Discovery (D3) REU Site, (**Best Overall Design**)
- ❖ Contributed to open source C++ machine learning library
- ❖ Worked with scalable framework technologies like Git, Cmake, Google Test

**NUCAR Side Channel Attacks** | Undergraduate Research Assistant 10/2015 – 4/2016

- ❖ Developed RSA encryption algorithms in C++
- ❖ *Hacking your Data – The Hard(ware) Way*, poster presentation at 2016 Research, Innovation and Scholarship Expo (RISE) at Northeastern University

**FIRST Robotics** | Lead programmer 9/2011 – 6/2015

- ❖ Competed in St. Louis National Championships 2012 & 2015.
- ❖ Worked in mechanical, electrical, and programming divisions

## Work Experience

**Bohler Engineering** | Warren, NJ Winter Break 2016

IT Intern

- ❖ Shadowed members of the IT department to learn about daily operations and future projects

Accounting Intern

- ❖ Self-taught VBA to develop macros to expedite processes in Microsoft Excel by up to 300%
- ❖ Improved digital backup process, backed-up 4+ months of invoices

## Achievements

**Conrad Spirit of Innovation Design Challenge** | Semi-Finalists 4/2015

**Boy Scouts of America** | Eagle Scout (Bronze Palm) 12/2014

## Interests

Ballroom Dancing

Scuba Diving

Ultimate Frisbee

Traveling