# ANDREW WANG

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## EDUCATION

**California Institute of Technology**
Bachelor of Science Computer Science 2019
GPA: 4.0 | National Merit Finalist | Dan Broida/ Sigma Aldrich Scholar

## EXPERIENCE

**Bank of America Merrill Lynch**                                                            Charlotte, NC
Global Technology Analyst                                                                Jun 2017 to Aug 2017
- Integrated management level approval requirements with Ariba procurement software in Java and Python to handle $13 billion in money transfers from 34,000 catalog and punch-out vendors per year
- Developed a full-stack application, a UI wrapper for the Ariba Integration Toolkit, that facilitates data transfer of master and transactional data between the Ariba system and the bank's JDBC-based back-end system

**Northrop Grumman**                                                                       Hollywood, MD
Decision, Support, and Targeting Software Developer                                      Jun 2016 to Dec 2016
- Implemented new features in C# for Precision Guided Munitions Planning Software per request of US Navy and Air Force
- Generated unit testing classes using mock and stubs to eliminate testing dependencies
- Administered and contributed to weekly code reviews and daily team SCRUMs in accordance with agile development

## SKILLS & COURSEWORK

**PROGRAMMING:** Python, C++, MySQL, C, Java, C#, R, OCaml, Bash, Unix
**COURSEWORK:** Data Science / Machine Learning, Databases, Algorithms, Data Structures, Programming Languages, Networks, Functional Programming, Statistics

## PROJECTS

**HomePlate**                                                                              Sep 2017 to Dec 2017
- watchOS and iOS app that allows baseball umpires to directly update a virtual scoreboard to improve pace of play and viewer convenience

**QuickAir – Predicting Flight Delays and Cancellations**                                  Mar 2017 to Jun 2017
- Used random forests, Naïve Bayes, KNN to classify cancellations with 98.6% accuracy, delays with 83.43% accuracy
- Regressed on delay times to get a MAE of 19 minutes

**Shakespearean Sonnet Generation**                                                        Mar 2017 to Mar 2017
- Applied a Hidden Markov Model to learn patterns in Shakespeare's sonnets to generate new sonnets with rhyme and rhythm

**Sudoku Game and Solver**                                                                 Dec 2016 to Jan 2017
- Designed GUI, interface, and backtracking algorithm to play and solve Sudoku

**Netflix Competition - Predicting Movie Ratings**                                         Mar 2017 to Jun 2017
- Implemented KNN, RBM, SVD to achieve RMSE of 0.86, 8.82% better than Netflix' Cinematch

## ACTIVITIES

**NCAA Men's Basketball**                                                                   Oct 2015 to Mar 2017
Varsity Member
- Featured in November 2015 issue of Sports Illustrated magazine
- Southern California Intercollegiate Athletic Conference (SCIAC) All-Academic Team

**California Institute of Technology Dean's Office**                                        Sep 2016 to Current
Dean's Tutor
- Tutored in Python, C++, machine learning, OCaml