

# MICHAEL D. CHA

<https://www.linkedin.com/in/michael-cha-5a2990a0>

---

## EDUCATION

Amherst College (Amherst, MA), Physics and Mathematics Major, Class of 2019  
Intro to Machine Shop, Department of Physics and Astronomy, Interterm, 2016

North Penn High School (Lansdale, PA), Class of 2015

Montgomery County Community College (Bluebell, PA)  
Calculus & Analytic Geometry III, MAT202, Credits 4.00, Summer II, 2015  
Principles of Physics II, PHY152, Credits 4.00, Summer II, 2014  
Calculus & Analytic Geometry II, MAT201, Credits 4.00, Summer II, 2013  
General Physics I, PHY121, Credits 4.00, Summer II, 2013

McDaniel College (Westminster, MD)  
Summer Science Academy Robotics Camp, Credit 1.00, June, 2013

Gwynedd-Mercy University/College (Gwynedd Valley, PA)  
Calculus & Analytic Geometry I, MAT245, Credits 4.00, Summer II, 2012  
Web Design I, CIS114, Credits 3.00, Summer II, 2012

Stanford University  
Human-Computer Interaction, [www.coursera.org](http://www.coursera.org), Statement of Accomplishment, May, 2012  
Computer Science 101, [www.coursera.org](http://www.coursera.org), Statement of Accomplishment, April, 2012

Arcadia University (Glenside, PA)  
Physics - Frontiers in Astronomy, PH224/PH224L, Credits 4.00, Summer II, 2011

## RESEARCH AND WORK EXPERIENCE

**Internship** **July, 2016 – Present**  
**Humantelligence, Inc.** **Miami Beach, Florida**

Humantelligence is a software company that develop software for building a highly motivated, engaged and capable workforce. <http://www.humantelligence.com>

**Game Developer** **June, 2016 – Present**  
**Self-Employed**

Independent Mobile Game Development using Unity and C#. Currently available games on Apple App Store and Google Play Store: Math Cannon, Thief Action. <http://mdcapps.weebly.com>

**Math-211 Multivariable Calculus Grader** **January, 2016 – Present**  
**Amherst College Department of Mathematics and Statistics** **Amherst, Massachusetts**

I worked for Prof. Yongheng Zhang and Prof. Gabriel Castillo Sosa to grade assignments, quizzes, and exams.

**Research Intern** **July 1st – August 29th, 2014**  
**Drexel University Mechanical Engineering Lab** **Philadelphia, Pennsylvania**

This was a research internship under the guidance of Dr. Moses Noh, where I studied interdisciplinary engineering projects. I studied MEMS technology and their applications and researched, built and tested paper static electricity generator.

**Internship** **August–October, 2013**  
**Buxmont Family Medicine** **DOYLESTOWN, Pennsylvania**

I helped with office work, shadowed the doctor and learned the importance of establishing relationships.

---

**Internship** **April, 2013**  
**Shenandoah Studio** **Philadelphia, Pennsylvania**

This was an unpaid internship. I tested prototypes and provided feedback from a potential customer's point of view. Also I was taught about all the elements and concerns that go into game creation and learned how the process is affected by and affects the economy. Shenandoah is a game studio focused on high quality turn-based strategy games for the iPad/iPhone. The first game Battle of the Bulge (WWII campaign) went on sale in December 2012. It was awarded War-Game of the Year 2012, as well as perfect ratings from many magazines. It maintains a 4.5 star rating in the App Store after 1000 reviews, even though it is a paid app costing \$10. New game Drive on Moscow was released recently to great acclaim.

**Tutor** **February, 2012 – 2015**  
**Kumon Learning Center** **Warrington, Pennsylvania**

This is a paid work and I teach Mathematics and English.

**Science Research** **2012–2013**  
**ICAS Youth Excellence Program** **Pennsylvania**

I spent about 1 year to research on Stem Cell and Nanotechnology, presented and defended at the ICAS Summer Symposium.

**Science Fair Research** **2012**  
**Pennbrook Middle School** **North Wales, Pennsylvania**

I created, tested, identified my unique formulas, and algorithms to solve difficult geared puzzles such as Gear Shift, Gear Cube Extreme and Gear Cube Ultimate.

**Private Mathematics and English Tutor** **July 2011 - Present**

**Tae Kwon Do and Weapons Instructor** **2007 - Present**  
**Cha's Tae Kwon Do Academy** **Doylestown, Pennsylvania**

**Tae Kwon Do Summer Camp Staff and Instructor** **2007 - 2009**  
**Cha's Tae Kwon Do Academy** **Doylestown, Pennsylvania**

### **AWARDS, HONORS AND SCHOLARSHIPS**

- Quest Scholar
- National Merit Scholarships Competitions Finalist, 2015
- National Classical Etymology Exam, 2015 - Gold Medal
- Sabrina Tam Memorial Scholarship Award, 2015 - Academic Excellence in Mathematics
- North Penn Chapter of National Honor Society Scholarship Award, 2015 - Outstanding Contribution to School and Community
- National AP Scholar, 2015
- AP Scholar with Distinction, 2014, 2015
- Dean's Commendation List for Summer 2014 Semester (Montgomery County Community College)
- The Johns Hopkins University Center for Talented Youth (CTY) International Mathematics and Verbal Talent Search
  - Top in Country Award, Exclusive Recipient-STB (Spatial Test Battery) , Spatial Ability Award, 2011
  - Grand Honor Award (SAT I) , 2011, High Honor Award (SAT I), 2010
- Montgomery County Science Research Competition-Division D - 1st Place Mathematics, 2012
- Delaware Valley Science Fairs (Tri-State) - Honorable Mention, 2012
- 2 Courses Scholarship to Gwynedd-Mercy College, 2011
- 1 Course Scholarship to Arcadia University, 2010
- Gold Medal (Summa Cum Laude) - National Latin Exam (Latin I) - 8<sup>th</sup> grade
- Silver Medal (Maxima Cum Laude) - National Latin Exam (Latin II & III) - 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> & 12<sup>th</sup> grade

- 
- Red Ribbon Award - National Greek Exam, 10<sup>th</sup> grade
  - Green Ribbon Award - National Greek Exam, 12<sup>th</sup> grade
  - Medusa Mythology Exam
    - Bronze Medal - 10<sup>th</sup> grade, Corona Olivae - 11<sup>th</sup> grade
  - Philadelphia Classical Society Annual Latin Week Academic Competition
    - Summa Cum Laude, 11<sup>th</sup> grade, Magna Cum Laude, 10<sup>th</sup> and 12<sup>th</sup> grade
  - Korean Scientist and Engineers Association
    - National Mathematics Competition - 2<sup>nd</sup> Place (11<sup>th</sup> grade), 2<sup>nd</sup> Place (10<sup>th</sup> grade), 3<sup>rd</sup> Place (8<sup>th</sup> grade)
  - American Mathematics Contest(AMC) 12, Certificate of Achievement, 2013
  - Continental Math League - 1<sup>st</sup> Place-9<sup>th</sup>, 8<sup>th</sup>, 7<sup>th</sup>& 5<sup>th</sup> grade, 2<sup>nd</sup> Place-3<sup>rd</sup> grade
  - Member of National Honor Society & National Junior Honor Society
  - Member of ICAS(Institute for Corean-American Studies) Youth Excellence Program since 2011
  - ICAS Youth Excellence Program Fellowship Contest, 2011 (<http://www.icasinc.org>)
    - Stem Cell Research and Nanotechnology(Winner Qualifier with Honorable Mention)
  - MATHCOUNTS Champion (Pennbrook vs. Indian Valley Challenge), 2011, (Pennbrook), 2010
  - President's Award for Educational Excellence-2009, 2012
  - Distinguished Honor Rolls-7, 8, 9, 10,11 and 12<sup>th</sup> Grade
  - 1<sup>st</sup> Place Overall (Superior Rating) - P2 String Ensemble (Viola Solo-1<sup>st</sup> Chair) Music In the Parks, 2011, 2012
  - 2<sup>nd</sup> Place - P2 String Ensemble (Excellent Rating) Music In The Parks (Dorney Park, PA), 2010
  - Grand Champion Traditional Oriental Martial Arts
    - Board Breaking, 2007/2009, Speed Board Breaking, 2007/2008/2009, 1<sup>st</sup> Place Sparring, 2009 (PA, NJ, MD)
  - 1<sup>st</sup> Place U.S. Kumdo Championship, 2009
  - 2<sup>nd</sup> Place Korea Sports Council in Philadelphia Kumdo Championship, 2009
  - 3<sup>rd</sup> Place WKA U.S. Kumdo(Kendo) Championship & USKU North America Kumdo Championship, 2008

## **POSITIONS HELD / LEADERSHIP**

**Founder and Student Leader** **January, 2016 - Present**  
**Amherst College Tae Kwon Do Club** **Amherst, Massachusetts**

**Student Panelist** **April 18, 2015**  
**KSEA National Math and Science Competition** **Yuong Sang Presbyterian Church, Pennsylvania**

**State Senator for a day** **October 17, 2014**  
**Student Seminar for Future Leaders** **Montgomery County Community College, Pennsylvania**

I served as a "State Senator" for a day and participated in a seminar for future leaders of Pennsylvania.

**President** **2013 - 2015**  
**Free Tutoring Group** **Doylestown, Pennsylvania**

**3D Puzzles Tutor** **2011 - Present**

<http://www.youtube.com/themichaelcha>

I make and upload video tutorials on how to solve 3D Cubes(Advanced Type of Rubik's Cube and alike) and Puzzles on YouTube.

**MathCounts Team Captain** **2010 - 2011**  
**Pennbrook Middle School** **Doylestown, Pennsylvania**

**Delegate at the ICAS Youth Excellence Program** **April, 2011**  
**LEADERSHIP TRAINING CONFERENCE** **Washington, D.C.**

---

**1st Chair/Solo Viola**  
**Pennbrook / P2 Ensemble**

**2009 -2011**  
**North Wales, Pennsylvania**

**Cha's Tae Kwon Do Academy**  
**Master Instructor**  
**Junior Master Instructor**  
**Instructor**

**Doylestown, Pennsylvania**  
**2013 - Present**  
**2011 - 2013**  
**2007 - 2011**

### **VOLUNTEER AND COMMUNITY SERVICES**

- Free Tutoring at Doylestown, PA, June, 2013 - 2015
- National Honor Society Fundraiser and Pete's Sake Walk Volunteer, 2013 - 2015
- Volunteer at the Doylestown Free Library, June, 2011- 2013
- ICAS Volunteer, since 2011
- ICAS Liberty Golf Classic Volunteer, 2011, 2012
- Pitt Orchestra(Viola) - Pennbrook Middle School Musical - If All Else Fail, 2011
- Institute for Corean-American Studies (ICAS) Liberty Tennis Classic Volunteer, 2011
- Martial Arts Demonstration
  - Event for Senior Citizens by Philadelphia Corporation for Aging, 2011
  - Senator Shirley M. Kitchen & GPASS's Community Service Awards Ceremony, 2011
  - Summer Music Festival, Philadelphia, PA, 2010
  - For Senior Citizens, 2009, 2008
- BonKukKum(Korean Traditional Sword Arts) Demonstration
  - WKA US Kumdo Championship, 2008
  - North American Kumdo Championship, 2008

### **LANGUAGES**

English (Native), Korean (Fluent), Japanese (Limited Proficiency), Latin, Greek

### **INTERESTS AND EXTRACURRICULAR ACTIVITIES**

Go (Baduk, Weiqi) Club, Latin Club, Greek Class, Math & Science Competitions, Tae Kwon Do, Kumdo(Kendo), BonKukKum(Korean Traditional Sword Arts), Viola/Violin, Mathematical Puzzles, 3D/2D Puzzles (Rubik's Cube and alike)

### **LICENSES AND CERTIFICATIONS**

- Tae Kwon Do Master Instructor
- 4<sup>th</sup> Dan (Degree Black Belt) - (Kukkiwon / World Tae Kwon Do Federation)
- 2<sup>nd</sup> Dan (Degree Black Belt) - (Korean BonKukKum Association)
- 2<sup>nd</sup> Dan (Degree Black Belt) - (United States Kumdo Union)

### **REFERENCES**

Available upon request.