Taisuke **Yasuda**

Mathematics · Computer Science

(919)259-9967 | ✉ taisukey@andrew.cmu.edu | 🏠 taisukeyasuda.github.io | ⚙ taisukeyasuda | in taisuke-yasuda

Education

Carnegie Mellon University *Pittsburgh, PA*
BS AND MS IN MATHEMATICS, ADDITIONAL MAJOR IN COMPUTER SCIENCE *Aug 2015 - May 2019*

- Accepted into Honors Math Program, which leads to a MS in mathematics in 4 years
- Awarded Carnegie Scholarship for academic and artistic achievement
- GPA 3.85/4.00, Dean's List Fall 2015, Spring 2016

ACTIVITIES: CMIMC Organizing Team Member, Math Club, Mellon Heads, All University Orchestra

SELECTED COURSEWORK: Theoretical Computer Scinece (Graduate), Probability (Honors), Real Analysis (Honors), Abstract Algebra (Honors), Matrix Theory (Honors), Functional Programming, Imperative Computation, Server Side Scripting with Node, Modern Version Control with Git

Experience

Mathematics Dept., Carnegie Mellon University *Pittsburgh, PA*
PUTNAM SEMINAR GRADER *Sep 2016 - Present*

- Graded homework for Prof. Po-Shen Loh's Putnam Seminar course for a section of $\sim$40 students
- Provided personal feedback and help to students

Barth Lab, Neuroscience Dept., Carnegie Mellon University *Pittsburgh, PA*
RESEARCH ASSISTANT *Jan 2016 - Present*

- Constructed and analyzed a hierarchical statistical model of the behavior of SST-Pyr synapses
- Implemented statistical analyses and visualizations in Python
- Wrote a manuscript for publication (currently in the process of editing)

Max Planck Florida Institute for Neuroscience *Jupiter, FL*
RESEARCH AND PROGRAMMING INTERN *Jun 2014 - Aug 2014*

- Developed a Java program used in a virtual reality system used to monitor brain activity of mice
- Mathematically derived geometric transformation mapping 2D game images to a 3D virtual reality experience
- Incorporated the transformation into the virtual reality system via Unity game engine

Projects

Dendrite Trace *Pittsburgh, PA*
15-112 TERM PROJECT *Nov 2015 - Dec 2015*

- Developed an algorithm based on reinforcement learning for automatic tracking of dendrites on 3D images
- Incorporated machine learning classification algorithms for local search
- Implemented the algorithm in Python along with tools for manually generating training data

Honors & Awards

Feb 2016	**Top 3**, TartanHacks	*Pittsburgh, PA*
Feb 2016	**Winner**, CMU All University Orchestra Concerto Competition	*Pittsburgh, PA*
Apr 2015	**2nd Place**, Pathfinder Scholarship in Mathematics	*Palm Beach, FL*
May 2015	**Winner**, Dreyfoos Philharmonic Concerto Competition	*Palm Beach, FL*
Apr 2015	**Winner**, Allegro Society Scholarship	*Palm Beach, FL*
Feb 2015	**2nd Place**, Alhambra Orchestra Concerto Competition	*Miami, FL*

Skills

PROGRAMMING LANGUAGES

Comfortable Python, C, LaTeX
Familiar Java, Matlab, JavaScript, HTML/CSS

WORLD LANGUAGES

Comfortable Japanese (native)
Familiar Mandarin Chinese (2 semesters)