

GABRIEL ABRAMS

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EDUCATION **MASTER OF ENGINEERING IN COMPUTER SCIENCE:**
Cornell University (Ithaca, NY), 2015 – 2016
- Cumulative GPA: 3.99
- Honors: Recipient of 2016 Computer Science Outstanding Project Award

BACHELOR OF ARTS IN PHYSICS:
Cornell University (Ithaca, NY), 2011 – 2015
- Cumulative GPA: 3.72
- Minor: Computer Science – GPA: 3.94
- Concentration: Education
- Honors: Dean's List, six semesters; Member of National Society of Collegiate Scholars
- Cornell in Madrid Study Abroad Program, Spanish Language Studies

PROJECTS **ROBOT PROGRAMMING INTERFACE FOR K-12 STUDENTS:**
New York State 4-H Foundation, Cornell University (Ithaca, NY), 2016 - Present
Created a student-friendly drag and drop coding interface for Baxter, a seven degree of freedom industry robot. Implemented computer vision-based object recognition and depth perception, inverse kinematics-based arm control, and co-designed UI with Prof. Ross Knepper and two graduate students.

PITCH PURSUIT EDUCATIONAL COMPUTER GAME:
Cornell University (Ithaca, NY), 2016
Developed a computer game that teaches piano and sight reading skills through a concreteness fading UI and mic-driven piano input. Created level generator that models student knowledge and dynamically generates songs and levels to maximize learning. Responsible for curriculum, user interface, graphics, and student learning evaluation.

GROUP MEETING SCHEDULING SYSTEM:
Cornell Library System (Ithaca, NY), 2015
Led a team of eight graduate students and faculty members to design, implement, and test a meeting and group learning scheduling system for the Cornell Library System. Responsibilities included leading bi-weekly meetings, facilitating client communication, and javascript front-end implementation.

EXPERIENCE **PROGRAM COORDINATOR:**
Hawaii Leadership Academy (O'ahu, HI), 2009 – 2015
Coordinated sixteen week-long leadership programs teaching interpersonal skills to foster children and victims of physical or substance abuse. Designed itinerary and curriculum for up to 120 students per program and facilitated academic, team building, and goal setting workshops.

EDUCATIONAL SOFTWARE ENGINEER AND FACULTY MEMBER:
University of Hawai'i (Lihue, HI), 2015
Created seven computer games, each teaching core physics concepts. Designed a curriculum that incorporated each game to teach programming skills and newtonian physics. Led two teaching assistants in instructing *Exploring Physics through Game Design* (ENR4500) where the curriculum was employed in conjunction with coding projects and physics labs.

AFTER SCHOOL PROGRAM COORDINATOR:
Dewitt Middle School, Odyssey of the Mind (Ithaca, NY), 2015
Designed two ten-week after-school programs: one helping students publish novels in the school library and one promoting engineering and science skills through tasks such as trap door construction and set design. Managed budgets and curriculum while co-facilitating the programs with a team of four.

TEACHING ASSISTANT:
Cornell University Physics Department (Ithaca, NY), 2012 – 2015
Led recitation sessions, physics labs, and exam preparation workshops. Worked with Connect, McGraw Hill's online education software, for one-on-one tutoring sessions. Recipient of Cornell's Outstanding Teaching Assistant Award, 2014.

LEADERSHIP AND SKILLS **LEADERSHIP:** Attended workshops and created programs with LeadAmerica, Hawaii Leadership Academy, Leadership Kauai, and TeenPact Leadership Schools.

TECHNICAL SKILLS: Proficient in Java, Python, Javascript, HTML, Octave, Matlab, CSS, PHP, and Excel. Designed websites, mobile applications, and client-specific programs.

INTERESTS: music composition, photography, travel, parkour, and Māori poi twirling.

