

111 Grandview Drive
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Patrick Kage
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CHOATE ROSEMARY HALL Wallingford, CT 2016
Honors: Grade 12 ACT: 34/36 SAT Subjects: Math II: 750 Physics: 760
Honors: Senior: Application Design Sophomore: Chemistry Freshman: Physics, Algebra II
Advanced Placement: Senior: Statistics Junior: Computer Science, 5 AP Exam

A W A R D S

Dean's Awards	Excel in All Subjects	Fall 2016, Winter 2016 and Spring 2016
Yearbook Superlative	Most Likely to Invent the Next Big Thing	2016
Choate Press Features	Alumni Bulletin	Feature Story Spring 2016
	Choate News	Highlighted April 2016
Advanced Computer Science	Award for Excellence	Honorable Mention 2016
	Award for Excellence	First Place 2015
She++	Fellowship Award	Stanford University April 2016
National Merit Program	Student Award	Commended 2014

E X T R A C U R R I C U L A R S

Choate Programming Club (CPU) Founder Hours: 480 hours 2012 - 2016
Solely responsible for computer science curriculum development, taught and ran coding workshops. Orchestrated assignments, added classes, and did strategic planning. Handled faculty interactions for equipment and materials. Applied and received \$1000.00 Google grant. Resulted in the hiring of a dedicated computer science teacher and increasing course choices from 2 to 7 per year with 200+ enrolled students/year from the previous 20.

Math Team Member Hours: 40 hours 2012 - 2014
Competed in tournaments and attended weekly meetings.

E M P L O Y M E N T

NASA Jet Propulsion Laboratory (JPL) Intern, Research Software Engineer Hours: 400 hours Summer 2016
Based out of JPL's 397-F (Ops Lab Human Interfaces Group) to develop mission formulation software to enable design of satellite propulsion systems in support of Team X and Xc's model-based systems engineering and foundry modernization initiatives. Resulting project made part of JPL's long-term strategic plan. Invited to return for internship summer 2017.

MIT STAR Lab Intern, Research Hours: 280 hours Summer 2015
Developed task scheduler monitor for the MiRaTA microsatellite RTOS (Salvo) and Flask/Python-based web dashboard for ground station monitoring and control. Personally presented work at MIT/US Department of Defense Lincoln Laboratory. Worked remotely with NASA's Jet Propulsion Lab (JPL) to identify existing spacecraft buses to fit proposed mission payloads by meeting user-specified constraints (cost, power, etc.). Resulted in JPL invitation for spring facility tour in preparation for summer 2016 internship.

Aurora Flight Sciences Intern, Software Engineering Hours: 440+ hours Dec 2016, ongoing
Developed systems software for an upcoming DARPA-funded joint MIT and Aurora microsatellite research mission (DeMi), as well as reverse engineering and repairing upcoming Aurora internal projects (covered by NDA/ITAR). Also involved in the creation of wholly new intellectual property for Aurora, with plans to pursue patents, continued development, and integration into upcoming missions and contracts.

A C A D E M I C P R O G R A M S

Johns Hopkins Center for Talented Youth Student Hours: 720 hours 2013, 2014
College-level courses: robotics, inductive/deductive reasoning, cryptology, computer science, electrical engineering, and biology.

Stanford University Student Hours: 182 hours Summer 2014
Explored Objective-C application design for iOS devices.

L A N G U A G E S

English: Native Polish: Conversational Mandarin: Intermediate

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P R E S E N T A T I O N S

Choate Rosemary Hall		2015 - 2016
Revisit Day	Conversed with Applicants	Spring 2015, April 2016 (x2)
Computer Science/Math Dept.	Summer accomplishments described to class	
College Counseling Office	Presented Junior Summer Opportunities	January 2016
She++	Fellow, Speaker	Stanford University 2014

Addressed CPU's successful inclusiveness of members' gender/ethnic diversity and overall high achievement levels.

C O M M U N I T Y S E R V I C E

Hartford Capital Classics	Developer	Hours: 20+ hours	2015 - 2016
Redesigned and maintained Shakespearean non-profit group's website to attract audiences and donors.			
St. John's Middle School	Instructor	Hours: 8 Hours	2012 - 2016
Prepared and taught a class in robotics to 10 ^{7th} -graders			
St. Dunstan Church	Member/Volunteer	Hours: 30 hours	2012 - 2016
Numerous events and fundraisers. Helped with Christmas decorations, kitchen, and running cookout.			
Choate Rosemary Hall	Boars Against Hunger	Hours: 12 Hours	2012 - 2016
Worked with Harvest Pack to package meals for food shipments to insecure families in Haiti and the U.S.			

C O M P U T E R S C I E N C E

NASA Jet Propulsion Laboratory	Intern, Software Engineer	Hours: 80 hours	March 2016
Invited to spend spring break at JPL in an exploratory capacity, shadowing Team X and Xc operations.			
Hewlett Packard Code Wars	Team Captain/Organizer	Hours: 4 hours	March 2015
Intense coding competition for high school students.			
Stanford University, She++ Diversity Summit	Speaker	Hours: 48 hours	April 2014
Spoke at Google, Facebook, Microsoft, and Oracle panels about gender diversity in computer science.			

P E R S O N A L S P O R T S

Tennis	Weightlifting	Running	Bicycling	Rowing
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M U S I C

Piano: Tutoring	Glastonbury/Choate	2006 – Present
Guitar: Self-taught		2015 – Present

S K I L L S

Adobe Creative Suite 6	
Illustrator	Poster making, print design, web design, application mockups
Photoshop	Photo enhancement/composition
Final Cut Premier/After Effects	Video production
Application Development	
Web Application Development	HTML/CSS/JS, SCSS, Node.js, Python, MongoDB
Native Application Development	Python, Electron, Objective-C
Systems Programming	C/C++, PIC24 Assembly, POSIX
Cybersecurity	
Reverse Engineering	Hex editing, disassembly, exploit generation
Pentesting	Metasploit, Ettercap, Wireshark
Software	
MS Office	PyCharm (Python IDE) Vim (Text editor)

T R A V E L

Domestic:	California, Connecticut, Florida, Maine, Maryland, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, Vermont, Washington DC
International:	Austria, Canada, Czech Republic, Germany, Greece, Italy, Liechtenstein, Mexico, Poland, Switzerland, United Kingdom