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 **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 List Award	Excellence 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

L A N G U A G E S

English: Native **Polish:** Conversational **Mandarin:** Intermediate

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

Choate Programming Club **Founder, President** **Hours:** 480 hours **2012 - 2016**
Responsible for meetings and strategic planning. Applied and received $1000.00 Google grant.
Handled faculty interactions, fundraising, developed computer science curriculum, taught and ran workshops.
Recognized for increasing Choate CS-related school credits earned from 20 per year to over 200 (as of 2015).

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

Stanford University, She++ **Fellow** **Hours:** 72 hours **2014**
Addressed gender and ethnic diversity in computer science/other STEM fields.

Capital Classics **Developer** **Hours:** 20+ hours **2015 - 2016**
Developed and maintained non-profit Capital Classics Shakespeare Group's website.

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.

E M P L O Y M E N T

NASA Jet Propulsion Laboratory **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. Also 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.). Resulting in invitation to JPL for spring facility tour in preparation for summer 2016 internship.

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COMMUNITY SERVICE

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.

COMPUTER SCIENCE

NASA Jet Propulsion Laboratory (JPL) — **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.

PERSONAL SPORTS

Tennis | Weightlifting | Running | Bicycling

MUSIC

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

SKILLS

Adobe Creative Suite 6
- **Illustrator** — Poster making, print design, web design, application mockups
- **Photoshop** — Photo enhancement/composition
- **Premier/After Effects** — Video production

Application Development
- **Web Application Development** — HTML/CSS/JS, Node.js, Python, MongoDB
- **Native Application Development** — Python, Electron, Objective-C
- **Systems Programming** — C/C++, PIC24 Assembly

Cybersecurity
- **Reverse Engineering** — Hex editing, disassembly, exploit generation
- **Pentesting** — Metasploit, Ettercap, Wireshark

Software
- **MS Office**
- **PyCharm** (Python IDE)
- **CLion** (C/C++ IDE)
- **XCode** (Objective-C/C/Swift/C++ IDE)
- **Terminal**
- **Vim** (Text editor)
- **Final Cut Pro** (Video production)

TRAVEL

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