

Robert Kaucic III

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Education

B.S. Computer Science, University of Illinois, Urbana-Champaign, IL

Expected May 2018

GPA: 4.0/4.0

Union College, Schenectady, NY

Aug 2014 - May 2015

GPA: 4.0/4.0

Coursework

Vector Calculus, Calculus IV, Differential Equations, Logic and Set Theory, Linear Algebra, Computer Architectures, Data Structures, Discrete Structures, Hypergraphics, Quantum Mechanics

Projects/Experience

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- **Dynamic Collision Prevention** -- Helped develop an algorithm in Java for preventing collisions between objects moving in real time on a monodirectional graph; supported dynamic changes to the graph and moving objects
 - **Rubik's Cube** -- Developed a 3D Rubik's Cube in VPython, complete with intuitive control system, animations, and a rudimentary solution system
 - **Algorithms /Programming Competitions** -- Participated in Siena College Programming Contests 2012 - 2015, winning the competition in 2015 (#1 of 40+ teams)
 - **Minimum Cost Pathfinding** -- Worked on an algorithm for optimal pathfinding on a grid using experience-based decision-making
 - **Hackathons** -- Participated in multiple hackathons at the University of Illinois, creating molecular models

Leadership

President of National Honor Society

Sep 2014 - Jun 2015

Organized service events for 100+ members

Coordinated volunteers in first ever Niskayuna Charity Week

Captain of Niskayuna HS Science Bowl Team

Sep 2010 - Jun 2015

Led four teammates at Upstate New York Regional Science Bowl competition

Member of the 2011 fourth place in the nation Middle School Science Bowl team

Co-President, Member, S.T.A.R.T. (Students Taking Action; Recycling Today)

Sep 2014 - Jun 2015

Organized volunteer recycling efforts

Honors

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- **National Merit Scholar Finalist** -- Awarded to the top 15,000 PSAT scorers in the United States, 2014
 - **Univ. of Illinois Chancellor's Scholar** -- One of 125 selected among class of over 7,000 students, 2015
 - **Frima Lukatskaya Scholarship recipient** -- Selected out of over 140 College of Engineering students in the University of Illinois College of Computer Science, 2015

Skills

Java, 5,000 - 10,000 lines; developed core sort, search, pathfinding algorithms

C++, 1,000 - 5,000 lines; developed and manipulated data structures, sorting, and searching algorithms

Python, 500 - 1,000 lines; created an interactive 3D Rubik's Cube

MIPS Assembly, 1,000 - 5,000 lines; translated C++ code into assembly-level code

Verilog, 1,000 - 5,000 lines; designed a primitive processor from scratch