ARPON RAKSIT
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Education

Harvard College, 9/11–5/15, Honors A.B. in Mathematics, Secondary in Computer Science, GPA: 3.97/4

Selected Courses

- Math 55a: Abstract Algebra
- Math 55b: Real/Complex Analysis
- Math 231a: Algebraic Topology
- Math 114: Analysis II
- Math 123: Algebra II
- Stat 110: Probability
- CS 121: Theory of Computation
- CS 124: Data Structures/Algorithms
- CS 222: Big Data Algorithms

Commack High School, 9/07–6/11, International Baccalaureate (IB) Diploma, GPA: 104.4/100

Honours and Awards

- National Merit Scholarship Winner, 4/11
- Intel Science Talent Search Semifinalist, 1/11
- Siemens Competition Semifinalist, 10/10
- New York State Science and Engineering Fair, ISEF division, Individual Third Place, 3/10
- Bausch & Lomb Honorary Science Award, 5/10
- USACO Gold Division, 11/09–6/11
- Suffolk County ARML math team, 6/10 and 6/11
- Suffolk County Math League 1st place team, high scorer, 6/10 and 6/11
- National Engineering and Design Challenge 2nd place team, 2/09

Experience

Mathematics research, Harvard University, 6/12–8/12

- With Prof. Joe Harris, Dept. of Mathematics. Funded by Harvard College Program for Research in Science and Engineering (PRISE).
- Supervised independent study of representation theory of Lie groups and Lie algebras, using the text *Representation Theory: A First Course* by William Fulton and Joe Harris.

Computational modelling research, Stony Brook University, 7/09–8/11

- With Prof. Dilip Gersappe, Dept. of Materials Science and Engineering. Garcia MRSEC Research Scholar in summers of 2009 and 2010. Funded REU in summer of 2011.
- Derived and implemented parallel models of material phenomena. Extended the C++ library *Palabos*, which implements a fluid simulation technique called the lattice Boltzmann method.
- Led two projects:
  - *Modelling heat transport in multiphase materials*, 7/09–8/11. Parallel model of heat flow in complex morphologies of composite materials. Project submitted to Intel STS and the Siemens Competition (awards listed above), presented at APS March Meetings 2010 and 2011.
  - *Simulating tablet dissolution in complex hydrodynamic environment*, 7/11–8/11. Parallel model of tablet dissolution in a turbulent fluid. Presented at APS March Meeting 2012.

Skills and Activities

Programming

- Languages: C, C++, Python, Java, LaTeX, Bash.
- Co-President of Commack High School Computer Club, 9/10–6/11. Taught basic topics in computer science and algorithms.

Tennis

- Harvard Club Tennis, 9/11–present. Commack Varsity Tennis, 3/09–6/11.
- SCORE volunteer: taught and played with people with disabilities one hour per week at local tennis centre, 9/10–6/11.

Saxophone

- Primarily play alto. Also play soprano and tenor.
- Commack Wind Ensemble and Jazz Ensemble, 10/08–6/11.
- "2% Milk", rock/ska/jazz band with friends. Wrote and performed music, 9/08–6/11.