Sanjit Bhat | Curriculum Vitae

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Education

○ **Acton-Boxborough Regional High School**   **Acton, MA**
Weighted GPA: 4.4/5.0, Unweighted GPA: 3.9/4.0   *Fall 15–Present*
- 2018–19 AP Courses: Statistics, Chemistry, English Literature, Spanish Language, Psychology
- ACT Composite (34/36); SAT Subject Tests: Math II (800/800), Biology E (790/800)
- Completed APs: BC Calculus (5/5), Computer Science A (5/5), Physics C: Mechanics (5/5), U.S. History (5/5)

○ **Harvard University Extension School**   **Cambridge, MA**
Multivariable Calculus, Linear Algebra (In Progress), GPA: 4.0/4.0   *Fall 18–Spring 19*

○ **AlphaStar Academy**   **Santa Clara, CA**
USA Computing Olympiad (USACO) Silver, Gold, and Platinum courses   *Summer 16–Summer 17*
Computational geometry, data structures, search techniques, graph algorithms, and dynamic programming

Extra-Curricular Activities

○ **MIT Program for Research in Math, Engineering, and Science (PRIMES)**   **Cambridge, MA**
Third-year student in highly-selective, year-long high school research program   *Jan 17–Present*
- Project 1: Attacking and defending users' anonymity on Tor Network (Jan 2017–Aug 2018)
  · Research at the intersection of secure communication and applied deep learning (self-studied via Fast.ai)
  · Semifinalist in prestigious 2017 Siemens Competition for high school research
  · Presented at MAA Undergraduate Student Poster Session of 2018 Joint Mathematics Meeting, San Diego
  · Second-author of paper accepted into 2018 ACM Workshop on Privacy in the Electronic Society
  · First-author of paper under review at 2019 Privacy Enhancing Technologies Symposium conference
- Project 2: Adversarial machine learning—Mądry Lab, MIT (Jan 2018–Present)
  · Research includes techniques from linear algebra, theoretical machine learning, and convex optimization
  · National Scholar in 2019 Regeneron Science Talent Search Competition with paper on efficient robust ML

○ **AB IdeaLab (AB's Computer Science Club)**   **Acton, MA**
Co-Captain (Fall 17–Present)   *Fall 15–Present*
- Plan team meetings, write teaching material, and assist members with creating and executing original projects
- Train competitive programming team—ranked #1 nationally in 2018–19 ACSL contest
- Planned and executed Major League Hacking local hack day (AB's Hackathon) in Dec 2017

○ **ABRHS Marching and Concert Bands**   **Acton, MA**
Principal Tuba (Fall 17–Present)   *Fall 15–Present*
- 3rd chair concert band tuba player at 2018 and 2019 MMEA Eastern District Senior Festivals
- AB marching band received gold medal at 2017 and 2018 state-level MICCA competition

○ **Boy Scouts of America, Troop 284**   **Acton, MA**
Eagle Scout (Earned Sep 16)   *April 12–Present*
- Achieved highest rank in Boy Scouts. Led project to paint local TV studio sets and enhance production value
- As Senior Patrol Leader, planned troop meetings and events and was primary interface between scouts and adults

○ **AB Science Olympiad Team**   **Acton, MA**
Member of 15-student team that won 1st place at Yale Invitational Tournament   *Fall 15–Spring 17*

Publications and Preprints

[1] **Sanjit Bhat**, Dimitris Tsipras, and Aleksander Mądry. Towards Efficient Methods for Training Robust Deep Neural Networks. *Led to 'Scholar' award at Regeneron Science Talent Search competition*, 2019.

[2] **Sanjit Bhat**, David Lu, Albert Kwon, and Srinivas Devadas. Var-CNN: A Data-Efficient Website Fingerprinting Attack Based on Deep Learning. *Under review at Privacy Enhancing Technologies Symposium*, 2019.

[3] David Lu, **Sanjit Bhat**, Albert Kwon, and Srinivas Devadas. DynaFlow: An Efficient Website Fingerprinting Defense Based on Dynamically-Adjusting Flows. In *Proceedings of the ACM Workshop on Privacy in the Electronic Society*, 2018.

[4] **Sanjit Bhat**, David Lu, Albert Kwon, and Srinivas Devadas. Var-CNN and DynaFlow: Improved Attacks and Defenses for Website Fingerprinting. *arXiv preprint arXiv:1802.10215*, 2018.

Honors and Awards

MIT Blueprint Hackathon—1st place in Main Division
Integrated computer vision and databases for real-time, collaborative music synthesis   *Feb 19*

USA Computing Olympiad—Gold Level
Penultimate level in highly-competitive high school CS Olympiad   *Dec 16*

President's Volunteer Service Award
Received Gold-level in 2015, 2016 and AB community service award in 2017, 2018   *Jan 15–Dec 18*

National Honor Society
Member of Raymond J. Grey chapter   *Spring 18–Present*

Work Experience

KTByte Computer Science Academy—Teaching Assistant   **Lexington, MA**
Assisted students with introductory–mid level CS using Java and Processing   *July 15–Jan 17*

Community Service

Peer Tutor   **Acton, MA**
Help high school students develop strong understanding across several subject areas   *Fall 17–Present*

Central MA Regional Student Advisory Council—Regional Delegate   **Hudson, MA**
Elected into committee that discussed solutions to pertinent educational issues   *Fall 16–Spring 18*

Science Discovery Museum—Volunteer   **Acton, MA**
Helped young children explore science through hands-on exhibits   *July 15–May 17*

Technical Skills

- **Languages:** Python, Java, LaTeX
- **Libraries/Frameworks:** TensorFlow, NumPy, Keras, Git
- **OS:** Windows, Unix/Linux