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 2015-Present

- 2018–19 Courses: AP 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 (In Progress)

Fall 2018

AlphaStar Academy

Santa Clara, CA

USA Computing Olympiad (USACO) Silver, Gold, and Platinum courses Summer 2016–Summer 2017 Learned 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

Highly-selective year-long high school research program

Jan 2017-Present

- Project 1: Attacking and defending users' anonymity on Tor Network (Jan 2017-Aug 2018)
 - · Independently learned best practices and techniques for applied deep learning 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
 - · First-author of paper under review at 2019 Privacy Enhancing Technologies Symposium conference
 - · Second-author of paper accepted into 2018 ACM Workshop on Privacy in the Electronic Society
- Project 2: Adversarial machine learning (Jan 2018–Present)
 - \cdot Working in Mądry Lab at MIT on developing efficient methods to train robust deep neural networks
 - Research includes techniques from linear algebra (self-studied via MIT OpenCourseWare), asynchronous parallelization, and convex optimization

AB IdeaLab (AB's Computer Science Club)

Co-Captain (Fall 2017-Present)

Fall 2015-Present

- Plan team meetings, write teaching material, and assist members with creating and executing original projects
- Train competitive programming team, which competes in American Computer Science League (ACSL) contest
- Planned and executed Major League Hacking local hack day (AB's Hackathon) in Dec 2017

ABRHS Marching, Concert, and Jazz Bands

Principal Tuba (Fall 2017-Present), Trumpet (Fall 2015-Spring 2017)

Fall 2015-Present

- 3rd chair concert band tuba player at 2018 MMEA Eastern District Senior Festival
- AB marching band received gold medal at 2017 state-level MICCA competition

Boy Scouts of America, Troop 284

Acton, MA

Eagle Scout (Earned Sep 2016)

April 2012-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

Member of 15-student team that won $1^{
m st}$ place at Yale Invitational Tournament $\,$ Fall 2015–Spring 2017

Publications and Preprints

- [1] **Sanjit Bhat**, David Lu, Albert Kwon, and Srinivas Devadas. Var-CNN: A Data-Efficient Website Fingerprinting Attack Based on Deep Learning. *Under review at 2019 Privacy Enhancing Technologies Symposium*, 2018.
- [2] 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.
- [3] **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

USA Computing Olympiad - Gold Level

Penultimate level in highly-competitive high school CS Olympiad

Dec 2016

MIT Blueprint Hackathon - 1st place in Rookie Division

Created a game that integrated visual perception, auditory cues, and motor functions

Feb 2016

President's Volunteer Service Award

Received Gold-level in 2015 and 2016 and AB community service award in 2017

2015–17

National Honor Society

Member of Raymond J. Grey chapter

Fall 2018-Present

Work Experience

KTByte Computer Science Academy - Teaching Assistant

Lexington, MA

Assisted students with introductory-mid level CS using Java and Processing

July 2015-Jan 2017

Community Service

Peer Tutor Acton, MA

 $^{\circ}$ Help high school students develop strong understanding across several subject areas $\,\,\,$ Fall 2017–Present

Central MA Regional Student Advisory Council - Regional Delegate

Hudson, MA

Elected into committee that discussed solutions to pertinent educational issues

Fall 2016–Spring 2018

Science Discovery Museum - Volunteer Acton, MA

Helped young children explore science through hands-on exhibits

July 2015–May 2017

Technical Skills

o Languages: Python, Java, LATEX

Libraries: TensorFlow, NumPy, Keras

o OS: Windows, Unix/Linux