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*

- 2-person team CS research project involved attacking and defending users' anonymity on Tor Network. Independently learned best practices and techniques for applied deep learning via Fast.ai
- Semifinalist in prestigious Siemens Competition for high school research. Invited to present at MAA Undergraduate Student Poster Session of 2018 Joint Mathematics Meeting, San Diego
- First-author of paper under review at Tier 1-1/2 Computer Security conference. Second-author of paper accepted into Top-Tier Computer Security workshop
- Re-admitted into 2018 PRIMES program for solo project. 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) — *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 competition
- 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 1st 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*
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Community Service

- **Peer Tutor** **Acton, MA**
  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 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

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