

SANJIT BHAT

Aspiring Researcher & Socially Conscious Tech Enthusiast

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☑ U.S. Citizen — Eligible to work in the U.S. with no restrictions

EXPERIENCE

Software Engineering Intern

RetailMeNot

📅 May 2020 – August 2020 📍 Austin, TX

- Deployed **Kubernetes Vertical Pod Autoscaler** to **AWS** clusters
- Ran **autoscaling** experiments using custom **Rust** app and **CD pipeline**
- Developed **organization-wide best practices** for autoscaling

Undergraduate Researcher (advisor Hovav Shacham)

The University of Texas at Austin

📅 January 2020 – Present 📍 Austin, TX

- Working on **formally verifying eBPF**, a core part of **Linux Kernel**
- Applied **signal processing** techniques on **JavaScript Web Audio API** to construct **indirect timers** that undermine **browser security**

Student Researcher (advisors Srinu Devadas and Aleks Mądry)

MIT Program for Research in Math, Engineering, and Science (PRIMES)

📅 January 2017 – August 2019 📍 Cambridge, MA

- Developing Novel Classifiers for Website Traffic Analysis
 - Studied website **information leakage** and designed state-of-the-art **deep learning** model that exploits multi-modal sequence data
- **First-author** of paper **published** in Privacy Enhancing Technologies Symposium — top **security and privacy** conference
- Improving the Efficiency of Robust Machine Learning
 - Developed **asynchronous parallel** procedure for training **robust machine learning models** and analyzed its effects on **optimization**
 - Demonstrated **26× speed improvement** and placed 300/2000 at **Regeneron STS** — nation's top high school science competition

PROJECTS

Multithreaded and Concurrent Web Server in Rust

📅 May 2020

- Architected **concurrency model** to use **Rust thread safety** features
- Implemented **database** to **asynchronously** handle **XMLHttpRequests**
- Evaluated **scaling performance** and deployed **unit tests** in **CD pipeline**

Collaborative Music Synthesis

📅 February 2019

- Enabled **multiple users** to join together and **synthesize music** in **real time** using laptop webcams as instrumental interfaces
- Integrated **OpenCV**, **Google Firebase**, and **JavaScript** for **gesture recognition**, **synchronized databases**, and **music generation**
- Won **first place** at Blueprint — **MIT's premier high school hackathon**

EDUCATION

B.S. in Computer Science (Turing Scholars Honors Program)

University of Texas at Austin

📅 May 2023

Key Coursework:

- **Systems/Security:**
 - Grad Computer Security*
 - Grad Cybersecurity Law & Policy*
 - Honors Operating Systems*
 - Honors Computer Architecture*
- **Misc:**
 - Honors Data Structures*
 - Honors Linear Algebra*
 - Honors Discrete Math*

GPA: 3.93/4.0

TECHNICAL SKILLS

Languages: Python (5/5), C/C++ (4/5), Java (4/5), Rust (3/5), Verilog (3/5)

Frameworks: Kubernetes, TensorFlow

TEACHING

- **TA:** Computer Architecture 2020
Instructor: Sid Chatterjee (UT Austin)
- **Lead Mentor:** Security Directed Reading Program, UT Austin Turing Scholars 2020

AWARDS

- **Ehren Kret Endowed Scholarship**
UT Austin Computer Science 2019, 2020
- **Scholar**
Regeneron Science Talent Search 2019
– Nation's oldest and most prestigious science and math competition
- **First Place**
MIT Blueprint Hackathon 2019
– MIT's premier high school hackathon
- **Semifinalist**
Siemens Competition 2017
– Premier science research competition
- **Gold Level**
USA Computing Olympiad 2016
– Nation's most prestigious high school competitive programming competition
- **Eagle Scout**
Boy Scouts of America 2016