

ANDREI RACILA

Student

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github.com/TheEnthralled

EDUCATION

Bachelor's in Computer Science
UNIVERSITY OF TEXAS AT DALLAS

📅 Fall 2019 – 2023 📍 Richardson, TX

GOALS

Help develop distributed consensus protocol and explore cutting edge cryptography such as Fully Homomorphic Encryption (FHE), Threshold Cryptography, Zero Knowledge Proofs (ZKPs), and Differential Privacy.

ACHIEVEMENTS

- NSA Codebreaker Challenge 2021 High Performer: Solved up to 7 tasks of the challenge successfully.
- Placed 8th out of more than 60 teams at the 2019 ACM ICPC South Central USA Regional Programming Contest
- Interviewed by Secretary of Energy Jennifer Granholm and U.S. Representative Colin Allred on how to promote students to enter into a STEM career.
- One of 30 students part of UTD's CS² Honors Program Class of 2023.
- AES Scholarship Recipient: Full ride 4-year scholarship that includes a stipend of \$3000 per semester.

SKILLS

C++, JAVA, GO, PYTHON, SOLIDITY, LINUX, UNIX, CRYPTOGRAPHY, MACHINE LEARNING, DATA SCIENCE, PANDAS

ACADEMICS

Cumulative GPA **3.825**

Graduate Introduction to Cryptography	📅 Fall 2021
Quantum Mechanics I	📅 Fall 2021
Database Systems	📅 Fall 2021
Graduate Operating Systems Concepts	📅 Fall 2021
Digital Logic and Computer Design	📅 Spring 2021
Thermodynamics and Statistical Mechanics	📅 Spring 2021
C, C++ Programming in a UNIX Environment	📅 Fall 2020
Advanced Algorithm Design and Analysis Honors	📅 Fall 2020
Intro to Machine Learning	📅 Fall 2020
Abstract Algebra I	📅 Fall 2020
Probability and Statistics in CS/CE	📅 Spring 2020

RESEARCH

DepFast

- Worked under Dr. Shuai Mu at Stony Brook University researching fail-slow faults in common databases (MongoDB, Redis, etc.) and found potential inefficiencies in their design.
- Presented the findings in a research report, poster, and presentation to faculty at Brookhaven National Laboratory (BNL).

Small World Networks at UTD

- Worked in a team of students and professors analyzing the small-world network phenomenon in the UTD student population and how it relates to the COVID-19 pandemic.
- Worked with Python and SLURM.
- Not currently published.

WORK EXPERIENCE

SULI program at Brookhaven National Laboratory

📅 Summer 2021 📍 Dallas, TX (remote)

- Participated in the Science Undergraduate Laboratory Internship (SULI) program organized by the Department of Energy (DOE). Worked on DepFast research.

Tech EdVentures

📅 Fall 2018 📍 Dallas, TX

- Taught elementary school children the basics of computer science through Python.

EXTRACURRICULAR

UTD Codeburners

- Competitive Programming Club at UTD.
- Helped run UTD Battle of the Brains, a series of programming competitions aimed at high school students around the DFW area.

PROJECTS

Cryptopals Crypto Challenges (<https://cryptopals.com/>)

- Implemented common attacks against cryptography protocols such as AES-ECB, padding oracle attacks, AES-CTR nonce-reuse, etc.
- Programmed implementations of common cryptography protocols in Golang such as parallel and sequential versions of AES-ECB, AES-CBC.