# Jacob Ginesin

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#### EDUCATION

Northeastern University

Aug 2021 - May 2025

BS in Computer Science and Mathematics

Boston, MA

• **GPA**: 3.81/4.0

• Activities: Math Society, Cybersecurity Club

University of College Dublin (Study Abroad)

Aug 2021 - Dec 2021

• **GPA**: 3.84/4.0

Dublin, Ireland

Plymouth Whitemarsh High School

Sep 2017 - Jun 2021

• GPA: 3.9/4.0 | Graduated Summa Cum Laude

Plymouth Meeting, PA

EXPERIENCE

Researcher Aug 2022 - Present

Network and Distributed Systems Security Lab (NDS2)

Boston, MA

• Employing formal methods techniques to analyze the Signal Protocol

• Mentored by Cristina Nita-Rotaru & funded by Khoury College of Computer Sciences

Researcher Jun 2022 - Aug 2022

Information Sciences Institute at University of Southern California

Los Angeles, CA

- Researched B-Root domain name system resolver behaviors at the Information Science Institute
- Mentored by Jelena Mirkovic & funded by the National Science Foundation
- Submitted first-author manuscript to <u>BDCAT 2022</u> (result pending)

Research Assistant Feb 2022 – Jun 2022

Network and Distributed Systems Security Lab (NDS2)

Boston, MA

- Worked on propositional finite state machine repair methods with Cristina Nita-Rotaru
- The research is part of a larger project where we employed NLP to derive finite state machines of distributed protocols (e.g. TCP, DHCP) from RFC documentation, then systematically tested their security

### Full Stack Developer

Jul 2020 – Oct 2020

Onfour - Virtual Concert Startup

- Designed, programmed, and implemented ReactJS components
- Implemented a chat server using web sockets, MongoDB, and NodeJS
- Code

# Information Technology/Camp Counselor

Jun 2019 - Aug 2019

Independent Lake Summer Camp

Thompson, PA

- Managed and secured a network for 500+ Campers and 100+ staff
- Upgraded camp network infrastructure and repaired computers
- Taught campers how to build model rockets and how to use Photoshop

#### TECHNICAL SKILLS

Languages: C++, Java, Python, Javascript, Rust, Shell, C, Lua, Racket, PHP, HTML, CSS

Libraries: NodeJS, NumPy, Tensorflow, PyTorch, Keras, OpenCV, MatPlotLib

Frameworks: ReactJS, Django, JQuery, ElectronJS

Software: Linux, Git, Latex, Vim, Metasploit, Wireshark, MongoDB, MySQL

# Projects

#### Discipline Management System

- Actively employed by Plymouth Whitemarsh High School
- Built using PHP, MySQL, and Bootstrap

# Personal Website - jakegines.in

- Selfbuilt website and blog
- Code