

# Jacob Ginesin

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## EDUCATION

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<b>Northeastern University</b> <i>BS in Computer Science and Mathematics</i> <ul style="list-style-type: none"><li>• <b>GPA:</b> 3.6/4.0</li><li>• <b>Relevant Coursework:</b> Graduate-level Algorithms, Graduate-level Computer Systems, Logic and Computation</li><li>• <b>Activities:</b> Math Society, CTF Team</li></ul>	Aug 2021 - (Expected) May 2025 <i>Boston, MA</i>
<b>University of College Dublin (Study Abroad)</b> <ul style="list-style-type: none"><li>• <b>GPA:</b> 3.84/4.0</li></ul>	Aug 2021 - Dec 2021 <i>Dublin, Ireland</i>
<b>Plymouth Whitemarsh High School</b> <ul style="list-style-type: none"><li>• <b>GPA:</b> 3.9/4.0   Graduated Summa Cum Laude</li></ul>	Sep 2017 - Jun 2021 <i>Plymouth Meeting, PA</i>

## EXPERIENCE

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<b>Research Assistant</b> <i>Network and Distributed Systems Security Lab (NDS2) at Northeastern University</i> <ul style="list-style-type: none"><li>• Developing formal models for SCTP and QUIC and formalizing known attacks (CVEs)</li><li>• Improving an existing attack synthesis pipeline using formal methods</li><li>• Advised by Cristina Nita-Rotaru &amp; funded by Khoury College of Computer Sciences</li></ul>	Feb 2022 - Present <i>Boston, MA</i>
<b>Teaching Assistant for Foundations of Cybersecurity</b> <i>Northeastern University</i> <ul style="list-style-type: none"><li>• Held bi-weekly office hours to assist students with foundational cybersecurity knowledge</li><li>• Graded assignments &amp; provided students with feedback</li></ul>	Jan 2023 - May 2023 <i>Boston, MA</i>
<b>Research Assistant</b> <i>Information Sciences Institute at University of Southern California</i> <ul style="list-style-type: none"><li>• Researched B-Root domain name system (DNS) query resolver behaviors</li><li>• Advised by Jelena Mirkovic &amp; funded by National Science Foundation grant</li></ul>	Jun 2022 - Aug 2022 <i>Los Angeles, CA</i>
<b>Full Stack Developer</b> <i>Onfour - Virtual Concert Startup</i> <ul style="list-style-type: none"><li>• Designed, programmed, and implemented ReactJS components</li><li>• Implemented a chat server using web sockets, MongoDB, and NodeJS</li><li>• <a href="#">Code</a></li></ul>	Jul 2020 - Oct 2020 <i>Remote</i>

## TECHNICAL SKILLS

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**Languages:** Python, C, Rust, Java, Lua, Racket, Scala, HTML, CSS, Javascript  
**Libraries:** NodeJS, NumPy, Tensorflow, PyTorch, Keras, OpenCV, Matplotlib  
**Software:** Linux (Arch/Gentoo), Git, Coq, Lean, Latex, Vim

## PROJECTS

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- Personal Website - [jakegines.in](http://jakegines.in)**
  - Selfbuilt website and blog
  - [Code](#)
- Arch-based Operating System**
  - Highly customized operating system built on top of Arch Linux
  - Used by me daily
  - [Code](#)
- Discipline Management System**
  - Actively employed by Plymouth Whitemarsh High School
  - Built using PHP, MySQL, and Bootstrap

## PUBLICATIONS

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Ginesin, J., Mirkovic, J. "Understanding DNS Queries at B-Root" *Proceedings of the International Conference on Big Data Computing, Applications and Technologies, 2022.* [Link.](#)