

# 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</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>Researcher</b> <i>Network and Distributed Systems Security Lab (NDS2) at Northeastern University</i> <ul style="list-style-type: none"><li>• Developing formal models for TCP, SCTP, LTP, QUIC, and TLS and formalizing known attacks (CVEs)</li><li>• Using SMT solvers to propositionally repair formal models</li><li>• Mentored by Cristina Nita-Rotaru &amp; funded by Khoury College of Computer Sciences</li></ul>	Feb 2022 - Present <i>Boston, MA</i>
<b>Researcher</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>• Wrote and presented first-author paper to <u>IEEE/ACM BDCAT 2022's Undergraduate Research Symposium</u></li><li>• Mentored 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>
<b>Information Technology/Camp Counselor</b> <i>Independent Lake Summer Camp</i> <ul style="list-style-type: none"><li>• Managed and secured a network for 500+ Campers and 100+ staff</li><li>• Upgraded camp network infrastructure and repaired computers</li><li>• Taught campers how to build model rockets and how to use Photoshop</li></ul>	Jun 2019 - Aug 2019 <i>Thompson, PA</i>

## TECHNICAL SKILLS

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**Languages:** C++, Python, Javascript, Rust, Shell, C, Java, Lua, Racket, PHP, HTML, CSS  
**Libraries:** NodeJS, NumPy, Tensorflow, PyTorch, Keras, OpenCV, Matplotlib  
**Frameworks:** ReactJS, Django, JQuery, ElectronJS  
**Software:** Linux (Arch/Gentoo), Git, Latex, Vim, Metasploit, Wireshark, MongoDB, MySQL

## 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