

# Jake Polacek

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## EDUCATION

### Cornell University, College of Engineering

Ithaca, NY

B.S. in Computer Science, Magna Cum Laude, External Specialization in Law & Society

August 2017 - May 2021

GPA: 3.873/4.000

Dean's list: All Semesters

**Relevant Coursework:** Programming Languages & Logic • Data Structures & Functional Programming • Cryptography  
Computer Vision • Analysis of Algorithms • Operating Systems • Discrete Structures • Embedded Systems

## EXPERIENCE

### Slack

San Francisco, CA

Security Software Engineer II, Product Security Foundations

July 2021 - Present

- Developed a comprehensive two-factor authentication library to simplify authentication on any customer-facing endpoint
- Integrated the project into development for use on Slack to protect its users and the company.
- Open sourced library via Slack HQ's repository to enable external developers to address security vulnerabilities.

Technologies: Hacklang, Python, Typescript, React, Git, JIRA

### Slack

(Remote) San Francisco, CA

Software Engineering Intern, Product Security Foundations

June 2020 - August 2020

- Developed an HTML sanitization library in Hacklang to prevent the execution of cross-site scripting attacks (an OWASP Top 10 Security Vulnerability).
- Integrated the project into development for use on Slack to protect its users and the company.
- Open sourced library via Slack HQ's repository to enable external developers to address security vulnerabilities.

Technologies: Hacklang, PHP, Git, JIRA, HTML

### SRC, Inc.

Syracuse, NY

Electronic Warfare Unit Software Engineering Intern, CNY STEM Scholar

May 2019 - August 2019

- Rewrote and extended over 100 C# interfaces to reach compatibility with the latest .NET Framework.
- Designed and implemented Python, MSBuild, and Batch scripts to automate compiling, packaging, testing, deployment, and documentation.
- Redesigned and rebuilt Windows Presentation Foundation tool that creates system configurations to utilize upgraded CREW Duke hardware.
- Worked in an Agile workflow on U.S. Government contracts requiring a confidential security clearance.

Technologies: C#, XML/XAML, Python, Java, WPF, .NET Framework and Core, Perforce, Bamboo

### Cornell Hyperloop

Cornell University, Ithaca, NY

Electrical Team Lead

August 2017 - December 2019

- Lead a team of 40 undergraduates to design and build the electrical system for a Hyperloop pod for the SpaceX Hyperloop Competition.
- Develop software and configure hardware to autonomously control the pod in response to position, speed, and orientation, with support for manual override.
- Prepare Preliminary and Final Design Reviews to present to SpaceX Engineers in order to receive design feedback.

Technologies: C/C++, Python, Java, Arduino, Beaglebone Black

## SKILLS

**Software Engineering:** Hacklang, PHP, Python, Java, JavaScript (React, Redux), SQL, C#, C/C++, OCaml, XML/XAML

**Programs/Tools:** Git, Prometheus, Grafana, Kibana, VSCode, MSBuild, WPF, .NET Framework, Batch Processing

## INVOLVEMENT

**Cornell Greek Life:** Recruitment Committee Representative, IFC Vice President of Programming, Greek Growth Committee Representative, Greek Judicial Board Representative, Mental Health Coalition Representative, Order of Omega

**Mortar Board Der Hexenkreis Senior Honor Society**

**Delta Tau Delta Fraternity:** President, Recruitment Chair

**Hobbies/Interests:** Hockey, Hiking, Soccer, Crosswords, Traveling, Dogs