







# Joshua Chen

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## Education

[about.thejsh.xyz](https://about.thejsh.xyz)

University of Illinois at Urbana Champaign  
B.S. Physics, Minor in Computer Science  
August 2014 to May 2018

- Data structures, OOP
- System programming
- AI, Machine learning
- Computer architecture
- Wireless networking
- Computer security
- Unity 2D with C#
- 2 semesters of Java peer tutoring
- HackIllinois volunteer (2015/2018)
- HackIllinois hacker (2016, awarded)

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## Experience

SHADAC Temp  
July 2017 to August 2017

- Built a set of automation scripts to streamline the process of taking workstation hardware and software inventory using Python, batch scripts, PowerShell, and Active Directory. Written with fault-tolerance and backwards-compatibility between multiple Windows versions in mind, this set of scripts reduced the required man-hours to virtually zero and prevented productivity interruptions of coworkers.
- Managed, analyzed, visualized, and presented site visits and usage analytics data using Google Analytics, Python, VBA, and Microsoft Office. This helped generate a better understanding of the target user-base, their interactions with the site, and sources of traffic from social media sites and search engines.
- Created full documentation on all scripts and tools built.

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## Projects

[projects.thejsh.xyz](https://projects.thejsh.xyz)

### Discord chatbot

- Multi-role plugin-based chatbot serving over 4500 Discord servers, written in Python
- Built with the discord.py wrapper, backed by a PostgreSQL database and deployed via Docker with Compose
- Core designed with a custom persistence model, command parser, plugin loader, backup system, and more
- 10+ plugins ranging from a rich music player to Wolfram|Alpha integration to a language translator
- Several plugins built to be integrated with web apps using webhooks for improved user experience

### Smaller projects

- Android app designed to help reduce eye strain by reminding the user to take breaks every 20 minutes
- Coin flipping Pebble watch app with comprehensive features and custom visuals, written in C
- FFmpeg and youtube-dl GUI wrapper to download videos and convert them to audio, written in C#.NET
- Personal website, built with Angular 4 and hosted with GitHub Pages, using SSL provided by CloudFlare

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## Skills and Technologies

- Strong written and verbal communication skills (US citizen and native English speaker)
- Experienced with both Windows (8+ years) and Linux (4+ years) systems
- Python, C (family), Java, CSS, JS/TS, HTML
- Visual Studio, Eclipse, Vim, gedit, Notepad++
- Subversion, Git, Docker, PostgreSQL
- PTC Creo, MS Office, Inkscape, GIMP