

CS100: Summer of Side Projects



Who We Are



David An
Sophomore in Math



Saurav Chittal
Junior in Math



Monica Para
Senior in CS + ADV



Drshika Asher
Junior in CS



How did Summer of Side Projects begin?

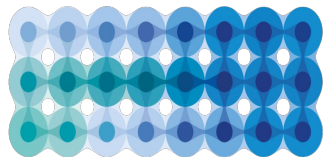
All it took was the **CS125 forum**, a **dedicated course staff community**, and a drive to transform an **idea to reality**



About Summer of Side Projects

- **4 weeks, 4 projects (in Python)**
 - Chatbots
 - Flask APIs
 - Command Line Interface
 - PyGame
- **Personal and Professional Development**
 - How to Side Project
 - Personal Branding
 - Resume Reviews
 - How to Interview Prep
 - IMC Recruiting Event

Program Sponsors



imc

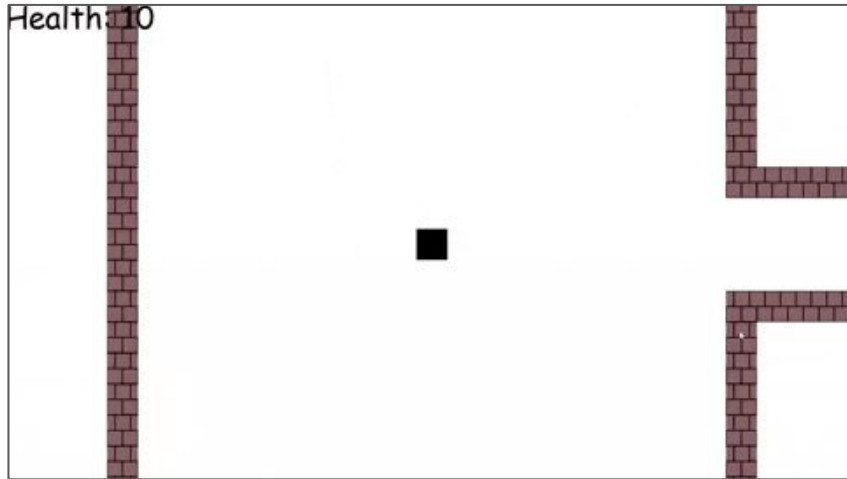




Sample Projects Made By Students

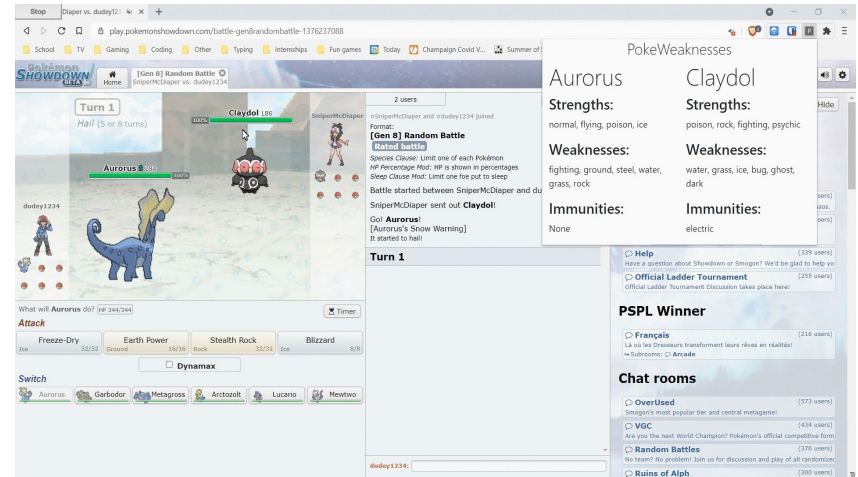
PySlayer - Khanh Nguyen

Dungeon Crawler with randomly generated rooms, enemies, projectiles and health.



PokeWeakness - Eugene Jang

Chrome Extension for Pokemon Showdown that shows the battle effective attack moves.





Personal and Professional Development



So, where do we begin?

- Internships are great ways to **get exposure into a field or company you are interested and helps with getting your foot into the corporate world** (think post-college)
- Biggest key you can do is to **focus on your personal and professional brand**
- **Aim for underclassmen opportunities** 🎯
- Ways to **build your portfolio**
 - Side Projects
 - Research
 - Hackathons



Some opportunities to check out!

**Look into Frosh/Soph Specific Programs like internships,
research, externships**

- **UIUC PURE Research**
- **NCSA SPIN**
- **Anything @ Research Park**
- **Course Staff in CS classes**
- **RSOs**
- **Google**
 - STEP
 - Summer of Code
- **Meta University**
- **Microsoft**
 - Explore (SWE + PM)
 - New Technologist

Resume Advice

- Always use **black and white for your resume**. Blue is fine too. Any flashy color is a turn off - *Karen from HR will cringe*
- Make it on **Word Doc or LaTeX**
- **General Format to follow**
 - Header
 - Education
 - Experiences
 - Projects
 - Skills



Jake Ryan

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EDUCATION

Southwestern University <i>Bachelor of Arts in Computer Science, Minor in Business</i>	Georgetown, TX Aug. 2018 – May 2021
Blinn College <i>Associate's in Liberal Arts</i>	Bryan, TX Aug. 2014 – May 2018

EXPERIENCE

Undergraduate Research Assistant <i>Texas A&M University</i>	June 2020 – Present College Station, TX
<ul style="list-style-type: none">• Developed a REST API using FastAPI and PostgreSQL to store data from learning management systems• Developed a full-stack web application using Flask, React, PostgreSQL and Docker to analyze GitHub data• Explored ways to visualize GitHub collaboration in a classroom setting	
Information Technology Support Specialist <i>Southwestern University</i>	Sep. 2018 – Present Georgetown, TX
<ul style="list-style-type: none">• Communicate with managers to set up campus computers used on campus• Assess and troubleshoot computer problems brought by students, faculty and staff• Maintain upkeep of computers, classroom equipment, and 200 printers across campus	
Artificial Intelligence Research Assistant <i>Southwestern University</i>	May 2019 – July 2019 Georgetown, TX
<ul style="list-style-type: none">• Explored methods to generate video game dungeons based off of <i>The Legend of Zelda</i>• Developed a game in Java to test the generated dungeons• Contributed 50K+ lines of code to an established codebase via Git• Conducted a human subject study to determine which video game dungeon generation technique is enjoyable• Wrote an 8-page paper and gave multiple presentations on-campus• Presented virtually to the World Conference on Computational Intelligence	

PROJECTS

Gitlytics <i>Python, Flask, React, PostgreSQL, Docker</i>	June 2020 – Present
<ul style="list-style-type: none">• Developed a full-stack web application using with Flask serving a REST API with React as the frontend• Implemented GitHub OAuth to get data from user's repositories• Visualized GitHub data to show collaboration• Used Celery and Redis for asynchronous tasks	
Simple Paintball <i>Spigot API, Java, Maven, TravisCI, Git</i>	May 2018 – May 2020
<ul style="list-style-type: none">• Developed a Minecraft server plugin to entertain kids during free time for a previous job• Published plugin to websites gaining 2K+ downloads and an average 4.5/5-star review• Implemented continuous delivery using TravisCI to build the plugin upon new a release• Collaborated with Minecraft server administrators to suggest features and get feedback about the plugin	

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, R
Frameworks: React, Node.js, Flask, JUnit, WordPress, Material-UI, FastAPI
Developer Tools: Git, Docker, TravisCI, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, Matplotlib



Resume Advice

IMPORTANT NOTES:

- When you list relevant coursework, **DO NOT PUT IRRELEVANT COURSES**
 - *Karen from HR **DOES NOT CARE** if you took **BBQ Science** if you're applying for **SWE Internship***
 - *Karen from HR **DOES CARE** if you took **Data Structures** or **Systems Programming***
- Make sure everything is relevant and **QUANTIFY IMPACT** and **SPECIFY TOOLS** where possible
- Use Word Doc or LaTeX (run thru ATS)
- Save file as **"YourName LastName Resume".pdf**



EDUCATION

University of Illinois at Urbana-Champaign
B.S. Applied Mathematics

Expected Dec. 2023
GPA: 3.93/4.00

WORK EXPERIENCE

Ameren
Data Scientist

Champaign, IL
May 2022 - Present

- Instructed a team of 3 interns to conduct research into load monitoring and collect data with Python and SQL
- Created multiple SQL queries enabling efficient retrieval of over **200,000** customer records and user profiles
- Constructed various workshops to teach new Python skills such as scikit-learn and Tensorflow to other interns

How does our resume look like?



you + online



LinkedIn Advice

- Think of it as your **resume but on social media**
- **Include any activities, experiences, awards, projects, etc** on there that you feel are relevant that won't be able to fit into your resume
- ***Make custom linkedin url***
- What you *should* really focus on putting out there
 - The Headline
 - Experience
 - Education
 - **Only put UIUC, not your HS**
 - Projects or anything that speaks best to you (research, article you wrote, etc)



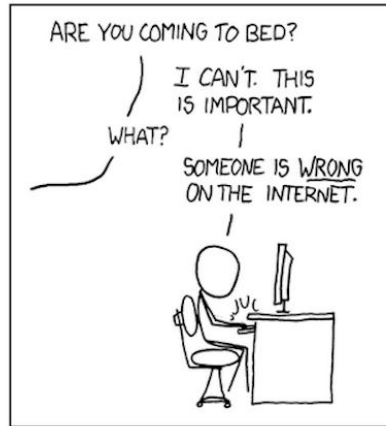


you + running



On empathy and being yourself

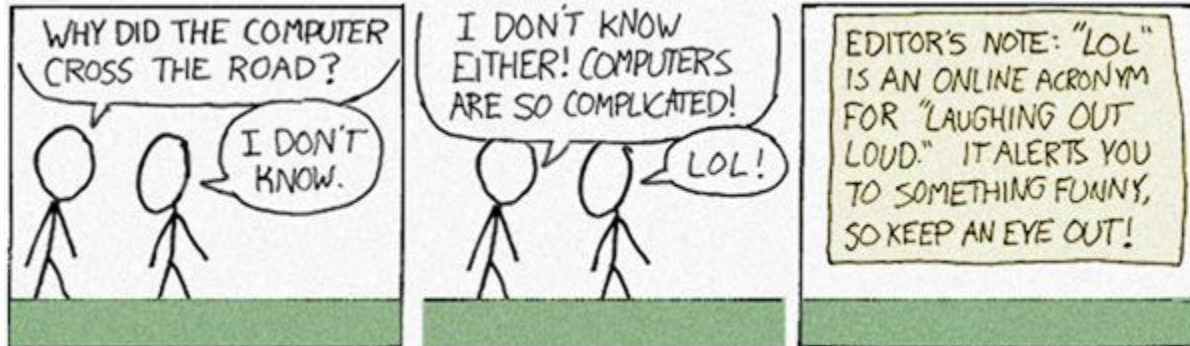
- You are your **own** advocate
 - Basically, you are your own billboard and advertising
- Empathy is an underrated tool
- Succeeding in any environment: **Humble, Hungry, and Smart**





The momentum of running

- College is a great place (we all know that)
- You get many opportunities thrown at you
 - Take any opportunity and **run** with it
- The grand path of life and the games you play
- The momentum of flywheels





Thank You!



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Connect with us!!