Soham Shripad Gumaste

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EDUCATION

BS in Computer Science | *University of Illinois Chicago*
- Expected Graduation December 2024
- Relevant Coursework:
  Data Structures, Language Design, Systems Programming, Systems Performance, High Performance Computing

WORK EXPERIENCE

Research Aide - Techinal | *Argonne National Laboratory*   *June 2024 - August 2024*
- Pioneered diagnostics tools for HPE Slingshot Layer 2 networks.
- Engineered solutions that work at the scale of Exascale super computers.

Teaching Assistant | *Systems Programming*   *2023-Present*
- Nurtured students to get a conceptual understanding of systems concepts like memory, kernels and systemcalls.
- Guaranteed student success in weekly lab sessions.
- Enocouraged students to discover their own solutions for homework with weekly office hours averaging 15 students an hour.

PROJECTS

Creator | *Cerberus [Javascript, NodeJS, SQLite]*   *2023*
- A full stack SSR web app for user self-onboarding and management to Active Directory (LDAP).
- Employed SvelteKit to interface with Domain Controllers and the Discord API.
- Engineered CI/CD with Github Actions for containerized deployment.

Package Maintainer | *NixOS*   *2022-Present*
- Spearheading the integration of packages crucial for first class Active Directory support.

Contributor | *Synapse (Matrix) [Python, Bash]*   *2019*
- Refined functionality in utility scripts.

Contributor | *KeepassXC [C++, CMake, Qt5]*   *2018*
- Revitalized the User Interface written in Qt5.
- Learned to discover a large existing codebase.

EXTRACURRICULAR

Vice President | *Linux User Group*   *2022-Present*
- Spearheaded events and workshops promoting Linux and Free and Open Source Software.
- Designed a workshop on Git to teach freshmen about the Git/Github Workflow

Undergrad Research | *Data Plane Programmability*   *2023-Present*
- Studied the emerging field of Data Plane Programmabilty with the P4 Language and the Intel/Barefoot Tofino Switch
- Worked with Packet Parsing programs to investigate the potential to offload computational primitives to the Data Plane.

TECHNICAL SKILLS

- Cloud Application deployment with Docker and Kubernetes.
- Networking with TCP/UDP.
- Server automation with Ansible. Experience with ActiveDirectory/LDAP
- Systems programming with C, C++ and Go, and functional programming with F# and Haskell and Scheme.
- Scripting experience in Bash, Perl, Python and Javascript/Typescript (NodeJS).
- Emacs enthusiast and ELPA package maintainer!