Sachin Kumar Singh

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EDUCATION

- **Guru Gobind Singh Indraprastha University**   New Delhi, Delhi
  Bachelor of Technology (Information Technology)   *Aug. 2018 – June. 2022(Expected)*

- **Pratap Public School**   Karnal, Haryana
  Higher Secondary; 93% in high school.

EXPERIENCE

- **Kubernetes**
  Open Source contributor   *Dec 2020 - Present*
  https://kubernetes.io/
    - Kubernetes is an open-source system for automating deployment, scaling, and management of containerized applications.
    - Involved with implementing new features, writing tests and providing support for new releases in Kubernetes and Kubernetes-CSI.

- **Google Summer of Code'20**   The GNU project
  Student Developer at GNU-Astro   *May 2020 – August 2020*
  https://summerofcode.withgoogle.com/projects/#4950581673721856
    - Implemented a library and a CLI interface to inter-convert different distortion types present in different astronomical datasets providing uniformity when different software are used in an analysis pipeline.
    - Implemented a space efficient index-based k-d tree for easy preprocessing of large astronomical datasets before matching.
    - Implemented a multi-threaded matching algorithm to match objects (stars and galaxies) in a query dataset to a reference dataset.

PROJECTS

- **URL Short** (*https://github.com/sachinkumarsingh092/urlshort*)
    - A URL shortening tool that uses YAML files from users and makes custom paths from them.
    - Can be used as a local binary or deployed on cloud using docker and kubernetes.
    - Built using Golang, Docker, Kubernetes, Make, Google Kubernetes Engine (GKE).

- **Otaku-chat** (*https://github.com/sachinkumarsingh092/Otaku-chat*)
    - A realtime chatting web application with multiple chat room functionality.
    - Features include creating and joining multiple channels, saved sessions after closing the browser and deleting sent messages.
    - Built using Flask, Javascript, FlaskSocketIO, jinja templating, Bootstrap CSS, PostgreSQL and hosted on Heroku.

- **Book Reviewer** (*https://github.com/sachinkumarsingh092/book-reviewer*)
    - Book reviewer is a web application allowing users to register themselves and rate and review books from a large catalogue of books.
    - Built using Flask, jinja templating, Bootstrap CSS, PostgreSQL, goodreads developer-API and hosted on Heroku.

ACHIEVEMENTS

- **Paytm Build for India Hackathon**
  Won 1st runner-up prize for building a website to be used by an educational organisation, where the same website can be used by students, teachers and administrators to organise their individual programs.

- **NIT-H CTF**
  Won 2nd runner-up prize in Capture The Flag (CTF) conducted by cybersecurity club of NIT-Hamirpur.

PROGRAMMING SKILLS

- **Languages**: C/C++, Python, Javascript, SQL, Shell scripting, Java, HTML, CSS, Golang, LaTeX, Make
- **Tools/Framework**: GNU/Linux, Git, Heroku, Docker, Kubernetes, Google Cloud Platform (GCP), Flask, Travis CI, REST API