Manasven Grover

manasven.grover@gmail.com
630-258-9190
1749 Trevino Circle, Bolingbrook, IL

Education

University of Illinois at Urbana-Champaign GPA: 3.61/4.00
Computer Science; Bachelor's of Science *August 2017 - May 2021*

- **Coursework**: Algorithms & Models of Computation, Data Structures, Distributed Systems, Applied Parallel Programming, System Programming, Database Systems, Computer Security, Languages & Compilers

Programming Skills

Languages: C/C++, Python, Go, Bash, SQL, MongoDB **Tools/Technologies**: Git, Docker, Kubernetes, Flask

Work Experience

IBM Durham, NC
DevOps Engineer *May 2021 - Present*

- Work in an agile, collaborative environment to build, deploy, configure, maintain systems, which include software installations, updates, and core services, onto OpenShift Container Platform or other Kubernetes-based clusters
- Design and implement tools for automated deployment and monitoring of multiple environments
- Work with several development teams to enable the configuration of an edge computing distributed framework consisting of a management hub cluster and remote instances to which workloads are deployed
- Automate, measure and optimize system performance, security, and processes

Advanced Reactors and Fuel Cycles (ARFC) Champaign, IL
Undergraduate Research Assistant for Nuclear Engineering Department *May 2019 - August 2019*

- Debugged a variety of issues in a Python nuclear engineering toolkit (PyNE) to ensure accurate functionality
- Re-implemented CircleCI integration tests to use most recent data sources to ensure library produces precise results, isolating test cases in different Docker containers with different optional dependencies
- Overhauled Bash installation scripts and Dockerfiles for PyNE to reduce obsolete dependencies, update required dependencies to latest versions, reduce required permissions to install the library, and reorganize dependency package management

Projects

Bebop (Social Media Web Application) *October 2020 - December 2020*

- Built a Python Flask application hosted on CPanel with one local database and one remote database on AWS
- Wrote functionality using embedded SQL queries for users to create account credentials and write posts
- Tracked post interactions in a MongoDB database to generate per-user statistics data visualization using Chart.js
- Prioritized relevant content by calculating word distance using the Word2Vec Python NLP library

Ray Tracer *January 2018 - May 2018*

- Implemented a physically-based renderer using principles of light optics including reflectivity and transparency, improving render quality using multi-sampling
- Utilized a tree-like bounding volume hierarchy data structure to optimize organization of geometric primitives, especially for rendering larger triangle mesh models, improving ray-intersection detection to logarithmic time

Activities

Illinois Rise Ultimate Frisbee *August 2017 - May 2021*

- Managed club funds as program treasurer during 2020-2021 academic year for over 100 program members; responsibilities include selecting hotels when traveling, collecting fees for tournaments, managing jersey creation and procurement, and obtaining team equipment
- Captained B-team in Spring 2019 season to a 2nd place finish at Great Lakes Sectionals and facilitate team's growth by planning practices, designing drills, making roster decisions, and boosting morale at tournaments
- Train and compete with a team of like-minded individuals in the sport of ultimate frisbee

Chair of GNU Linux User Group (ACM) *August 2018 - December 2018*

- Special interest group focused on promoting use of Linux and development of free and open source software
- Involved in projects to provide tools for computer science, engineering students and other ACM members to use

CS Sail @ Illinois *January 2021 - April 2021*

- Designed a 1 hour course introduction to workflow with the command line for incoming UIUC freshman with lecture and lab components and instructed two online class sessions of about 15 students