Govind Nair

govindnair28@gmail.com | linkedin.com/in/govindnair2| U.S.Citizen | govgovnahr.github.io | +1 (309)-648-6368

Education

University of Illinois at Urbana-Champaign Champaign, IL

B.S. Engineering Physics, Minor in Computer Science *Aug. 2019 – May 2023*

- Concentration: Computational Physics
- Relevant Coursework: Data Structures, Interactive Computer Graphics, Applied Machine Learning, Applied Linear Algebra, Introduction to Computer Science

Work Experience

Software Engineer June 2023 – May 2024

Sony Interactive Entertainment - PlayStation *San Francisco, CA*

- Created support chat-bot leveraging AWS Lambda, Python, and LLAMAv2 LLM back-end to intelligently route and respond to engineering support requests, reducing engineer context switching and improving productivity by addressing 25% of daily support requests
- Collaborated with senior engineer on development of a master CI/CD pipeline combining RBAC, Helm chart generation, and ServiceNow request pipelines via Jenkins (Groovy), improving production time by up to 30%
- Devised and constructed dynamic Helm chart generation from pre-built schema configurations, decreasing time spent by developers on Helm chart creation and validation
- Performed quarterly duties as the on-call engineer for the team, handling engineering support requests, running and creating ArgoCD jobs, and performing KTBR maintenance via Bastion and other internal tooling when necessary
- Utilized Jira for project management and issue tracking to streamline coordination and delivery of project milestones.

Software Engineer Intern May 2022 – Aug. 2022

Sony Interactive Entertainment - PlayStation *San Francisco, CA*

- Built a monitoring system using Python for resource-intensive Kubernetes applications in production clusters
- Utilized Jenkins (Groovy) to create internal tooling that notifies senior engineers of failed Kubernetes deployments, improving time to resolve by 20%
- Assessed viability of open-source automation and alerting tools for use in production workflows by senior software engineers

Data Analysis Intern May 2021 – Aug. 2021

University of Illinois at Urbana-Champaign *Champaign, IL*

- Simulated multiple complex SERSIC source models in Python using Lenstronomy
- Assisted senior researchers with the detection of dark matter using techniques to identify gravitational lensing
- Performed analysis on data from said simulations and compared to ALMA data to be presented in weekly reports

Data Science Intern May 2020 – July 2020

Shopalyst *Bangalore, India*

- Utilized Python to improve sales metrics in the beauty market through data pre-processing, cleaning, and analysis
- Launched internal tooling to parse and structure information from a sales database with Pandas and NumPy
- Collaborated with a team of 4 engineers to coordinate development resources and communicate findings to clients

Technical Skills

Languages: Python, Groovy, JavaScript, C/C++, GLSL, SQL, Java, HTML/CSS, MATLAB

Tools/Frameworks: Agile, Frontend, Backend, Full Stack, AWS (ECR, EKS, Lambda, Cloudformation), Jenkins, ArgoCD, Prometheus, Kubernetes, Docker, Helm, Git, Node.js, React.js, React Native, VSCode, XCode

Projects

Moment | *React Native, Neo4j*

- Designed and released a UIUC-specific event recommendation app with 600+ student downloads
- Incorporated back-end connections and optimizations through REST API creation and reduced server communication

Quantum Simulator | *Python*

- Simulated quantum computing algorithm using NumPy and linear algebra techniques
- Implemented Shor's Algorithm to demonstrate prime factorization and determine periodicity of wavefunction

Airport Search | *C++*

- Developed a program to calculate the shortest route between airports using A* Search algorithm
- Integrated PageRank algorithm to probabilistically determine most popular destination airports from any given airport