Hemanth Rao Karade Nagendra

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Education

- **University of Colorado, Boulder** — Colorado, USA
  Master of Science, Computer Science; GPA: 4.0/4.0 — *Aug 2022 - Present*
- **R.V College of Engineering** — Bangalore, India
  Bachelor of Computer Science and Engineering; GPA: 8.49/10 — *Aug 2014 - May 2018*

Skills Summary

- **Programming Languages**: Python, JavaScript, Golang, Perl, C++, C, Java, PHP, Bash, HTML5, CSS3
- **Framework**: React.js, Node.js, Flask, Spring, Perl Moose
- **Software & Tools**: Docker, Jenkins, Salesforce CRM, Grafana, Ansible, GIT, JIRA, Juniper Firewalls, Tenable, Infoblox Netmri
- **Database Systems**: MySQL, PostgreSQL, MongoDB

Work Experience

- **Arista Networks** — Austin, TX
  Software Engineer Intern — *May 2023 - Aug 2023*
  - **OpenBMC**: Worked on enhancements on the linux distribution for management controllers used in devices such as servers and top of rack switches, also streamlined the software deployment and delivery process
  - Contributed to enhancing CI & CD processes to seamlessly integrate openBmc into Arista's development workflow
- **Akamai Technologies** — Bangalore, India
  Senior Software Engineer — *Oct 2021 - Aug 2022*
  - **The Bulwark - Network security project**: **Single-handedly designed and developed a full-stack application** to manage the complete life cycle of firewall policy implementation for an entire Akamai corporate network, spanning **150+ locations worldwide**, and took up a role as an **acting product manager**. The application controls the end-to-end flow of requests, ranging from request intake, automating approvals, and implementing firewall requests & dashboards for a visual representation of data. This saves **≈15,000+ hours of manual work per year** for the network operations team
  - **Sandbox Post-Refresh Framework**: Designed and developed a framework in python to automate salesforce sandbox post-refresh activities for **≈600 sandboxes per year** and reduced sandbox refresh time **from 3-4 days to under 6 hours**

  Software Engineer II — *Oct 2019 - Sept 2021*
  - **Falcon**: Developed a **full-stack** application to provide a one-stop user interface for QAs across organizations for any web-based automation, API, and database testing. etc., This application eliminates the need to write scripts for any complex automation workflows and testing workflows, **saving ≈2,000 hours every year**
  - **Patching tool**: Developed a **full-stack** application used to identify, manage and patch vulnerabilities of **10,000+** virtual machines. The application was designed to scale to support other device types, thereby **saving ≈5,000 hours** of manual patching work for the IT Operations team every year

  Software Engineer I — *Jul 2018 - Sept 2019*
  - **Citadel**: Developed a **framework** on Perl, used for deployment of salesforce metadata components, thereby reducing the deployment time **from 3 days to just under 15 mins**
  - **VM Build Automation**: Automated end-to-end workflow of UNIX virtual machine build and provisioning process. This includes connecting to various technologies some of which include Salesforce, Infoblox NIOS, and Vmware Vsphere. etc., **saving ≈300 hours per year**
  - Developed scripts and ansible playbooks to **automate manual tasks** performed by system, network, and IT operations team in regular intervals

  Software Engineer Intern — *Jan 2018 - Apr 2018*
  - **HostDB Tool**: Designed & Developed LAMP Stack application to retrieve details of **≈10,000 servers**, to process and present data in the requested format, **saving ≈500 man-hours per year**
- **Hindustan Aeronautics Limited** — Bangalore, India
  Software Engineer Intern - Mission Combat System R&D Centre — *May 2016 - Aug 2016*
  - Developed a cross-platform application for secure wireless communication between two remote airborne computers. The primary focus is on studying and implementing how cryptographic algorithms can be effectively used in warfare scenarios. Also **presented a research paper** about this implementation at an **IEEE conference, CSITSS, Bangalore - 2017**

Publications

- K. H. Rao, N. Chandrakanth and A. K. Koundinya, "Secure Handshake Mechanism for Autonomous Flying Agents Using Robust Cryptosystem," 2017 2nd International Conference on Computational Systems & Information Technology for Sustainable Solution (CSITSS), Bangalore, 2017, pp. 1-5 (Available on IEEE Explore and Arxiv Sanity)

Honors and Awards

- Akamai Akalades Award and was among the **finalists of Most Valuable Player Award 2021** for project Bulwark
- Akamai Akalades Award, cash grant of **$200** for delivering the Falcon project
- Akamai Spot award, cash grant of **$150** for outstanding contribution on project Citadel
- Cash grant of **$200 every year** for academic excellence from the Ministry of Human Resource Development (MHRD) for **4 years**