Gahan Saraiya

With over 5+ years of experience as a Firmware Development Engineer at Intel Technology India Pvt Ltd., I possess a strong command over Python, UEFI Firmware, and DevOps, complemented by a thorough understanding of their workflows and architectures. My enthusiasm for open-source contribution and knowledge dissemination reflects my commitment to being a philanthropist in the realm of technology. I am eager to channel my expertise into the architectural design of optimized quantum computing algorithms tailored for multiprogramming environments, as well as to explore the synergies between these cutting-edge technologies and DevOps practices.

Experience

Jun 2020 - Present

Silicon Firmware Development Engineer
Intel Technology India Pvt. Ltd.
As the Platform Lead for the next generation client platform and architecture design at USF POL, responsibility span across domains, including Automation Framework, Platform Provisioning, Applied Generative AI & Prompt Engineering for productivity enhancement and Quantum Firmware Design.
The end-to-end Software Development Life Cycle is managed, which includes licensing, legals, and IP planning, as well as applicable Code Security and Static Code Analysis. Additionally, the automated testing of functional validation of Firmware with TeamCity and Jenkins is overseen, and the publishing of artifacts on Artifactory, along with managing webhooks on JIRA.

Jun 2019 - May 2020

Silicon Firmware Development Engineer Intern
Intel Technology India Pvt. Ltd.
BIOS Firmware Development for Client products with the framework EDK2, UEFI Firmware, Involvement with assessing new debugging solutions and OpenBoard Package

Jul 2017 - Apr 2018

Software Developer
Quixom Technology
SaaS-Employee management system (chat, surveys, benchmark, analytics...) and Restful API Development; socket programming in python to receive continuous data from IoT device and display chunks of data meaningfully, web portal for rendering dynamic menu content in Kodi

2015 - 2017

Freelance
Designer
Web Scraping, Designing of banner, memento and certificates

Education

Jul 2018 - Jun 2020

M.Tech Computer Science and Engineering, Institute of Technology, Nirma University
PPI: 8.49

Aug 2013 - Apr 2017

B.E. Computer Engineering, GTU
CGPA – 8.08

Jun 2011 - Mar 2013

12th Science, GSHSEB
74.92 %

Jun 2010 - Mar 2011

10th, GSHSEB
81.4 %

Achievements and Extra Curriculum Activity

2023 — Firmware Configuration Presentation at UEFI Developers Conference & Plugfest

2019-Present — 4000+ reputation on Stackoverflow

2017-Present — Active volunteer on Peer Learning, Cultural and team building activity

2018 — Rank #1 for Python challenges on hackerrank

2018 — Rank #112 from 2lacs+ participants in Techgig's National Coding Contest 2018

2018 — Pluralsight IQ 248 out of 300 for Python

2015-2017 — Google Admin system Administration for Institute

2016 — Zonal Winner in Cyber Security arranged by Braintech 2017

2014 — Technical Event and Placement Coordinator

2014 — Establishment of complete network for Department

Personal Info

Address
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E-mail
gahansaraiya@gmail.com

Date of birth
September 09, 1995

Website
gahan9.github.io

GitHub
github.com/gahan9

Medium
gahan9.medium.com

LinkedIn
linkedin.com/in/gahan-saraiya

Twitter
twitter.com/mark_gahan

Skills

Languages - Python, C, Rust, Shell Scripting, SQL, LaTeX, YAML

Frameworks - Edk2, Django, PyCUDA, Pandas, Tkinter, Selenium, Octave

Tools and Services - GitHub Actions, Restful APIs, JFrog Artifactory, Teamcity, JIRA, Puppet, Docker, Docker Compose, Jenkins, AWS, GiT, Prezi

Languages

English

Hindi

Gujarati

Projects

2023 - Present

Prompt Engineering and Generative AI for firmware stack
Description: Solution design for accelerated silicon tape-in with accelerating firmware deliveries
- Azure Open AI services with GPT 3.5 and GPT 4
- Summarization of work ticket
- Code Review against standard static code analysis and common vulnerabilities
- Code Enhancement suggestion

2023 - Present

Platform Provisioning with Pre-Production Reference Board
Description: Platform Provisioning with automating most common features for pre-production server processor such as:
- Remote BMC and BIOS Firmware Flashing
- OS Deployment from artifactory
- Boot to EFI Shell and OS

2022 - Present

Universal Scalable Firmware
Description: Architecture design of Platform orchestration layer for Firmware Configuration
- Motivation of workgroup - Firmware Configuration – Past, Present, and Future
- Firmware Configuration

2020 - Present

Firmware Automation Framework
Description: Lead SDL for an automation foundation framework for high scaled volume of silicon devices with edk2 UEFI firmware;
- seamless configuration of system without any manual intervention for BIOS configuration.
- SDL activities like legal compliance, security, licensing, static code analysis
- Continuous deployment and test with jenkins and tox configurations
- Release Artifact management to JFrog Artifactory using GitHub Actions
- https://github.com/intel/xml-cli

2019 - 2020

Multiview Video Summarization
Description: Summarizing video of multiple view angles of egocentric location in to one to generate effective video summary, minimizing overhead to explore multiple cam feed to discover accidents or anomalies.

2018

Consummating Research Projects using Agile Manifesto
Description: Utilization of Agile Manifesto for consummating research projects. Enlightening the appropriateness of Scrum for the research projects which is a widely used agile manifesto at present in the software industry.

2018

Inventory Management and GST Billing for Mobile Shop
Full stack Developer
Description: To avoid the headache of manual billing automated GST billing system designed to manage stocks and update according to purchase and sales and generate GST invoice for sales.

2017-2018

Streaming Box
Full stack Developer
Description: An alternate streaming service to DTH and providing easy customized IPTV streaming service based on Kodi (formerly xbmc) Framework
- Backend Streaming Service, authentication and server security with Django Framework and REST API
- Web Portal to enable vendor customize Streaming Front-end UI for their users
- Cross compilation and Native compilation to enable various platform support as Android, Windows and MacOS

Area of Interest

- Quantum Information Science
- DevOps

Interests

- Piano
- Chess

Publications

2016 A Review on Honeypot : Track the Attack. NCCICT, 2016

2023 Firmware Configuration – Past, Present, and Future. Presentation, UEFI DevCon 2023