Simrat Pal Singh Satia

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Work Experience

Microsoft India Development Center (IDC)   **Hyderabad, India**

Senior Software Engineer - L63   *Jun 2024 - Present*

Azure Hybrid Benefit *Pay-As-You-Go Images*
- **Redesigned, implemented** the service in python (flask) to scale it from 18k to 500k subscriptions, increased revenue
- Redis cache sharding for faster data retrieval, isolated per offer. Integrated with Kusto database with pagination.
- Integrated testing, memory profiling, optimization of codebase with **multi-threading** leading to 50% faster operations

Roles and Responsibilities
- Azure Linux Team lead, scrum master, key contributor to semester/sprint planning, triaging/prioritizing work items
- Mentored new team members and customer support engineers, streamlined onboarding process
- Introduced processes for faster code reviews using AI and Teams integration, reducing turn-around time by 50%

Software Engineer 2 - L62/61   *Jul 2022 - Jun 2024*

Client Package Automation
- Redesigned package build workflow to 1-click automated process using C#, AzDevops saving 100h/release cycle
- Designed and developed C# (MSTest) validation framework, boosting package reliability with 95% fewer bugs.
- Orchestrated CI/CD workflow with gated checks, baketime, 0 manual touch to production, reducing regressions by 95%

Azure Hybrid Benefit *RedHat Custom Images*
- E2E ownership of design, scalable development, deployment of license conversion service with no VM downtime
- Spearheaded collaboration across billing, legal, MS Partners with 30+ stakeholders to develop and ship globally
- Extended solution to 1M+ Ubuntu customers to switch to Ubuntu Pro license, leveraging AHB's extensible design

Software Engineer 1 - L60/59   *Jul 2019 - Jul 2022*

Red Hat Update Infrastructure (RHUI) server
- Design and development of Nginx based distributed infrastructure, serving 1M+ Azure RedHat customers
- Integrated services with observability platform, created dashboards/monitors, cutting issue resolution time by 80%

UI Automation and Testing Tool
- E2E onwership of code, design, implementation of extensible automation tool to perform testing of website's user interface. Built using NodeJS, Puppeteer, EJS Templates

Stress Testing and Benchmark Tool
- Contributed to **design and development** of stress testing tool of linux VMs across CPU, disk, memory utilization
- Built using Golang, goroutines, linux kernel and proc file system

Workload Builder
- E2E ownership of UX design, UI development using typescript. Mentored intern on Azure Portal UI development

Software Engineering Intern, Excel Android Team   *May 2018 - Jul 2018*
- Shipped feature to share selected ranges and chart in Excel to social platforms using C++ and Java

Education

Netaji Subhas Institute of Technology (NSIT), University of Delhi   **New Delhi, India**

*Bachelor of Engineering (**First Class**) in Computer Engineering **GPA: 8.1/10***   *Aug 2015 – Jun 2019*
- ***Research and Patent Award*** with grant of Rs 10k to distinguished researchers

Publications

- Aggarwal, S., Gupta, S., **Satia, S. P. S.**, Saluja, S., Gambhir, V. (2022). Predict Smartphone Addiction Through Usage Pattern of Installed Android Applications, derive Correlations with Addiction. Journal on Addictions, 9(1), 63-74.
- Aggarwal, S., Saluja, S., Gambhir, V., Gupta, S., **Satia, S. P. S.** (2020). Predicting likelihood of psychological disorders in PUBG players using supervised machine learning. Addictive behaviors, 101, 106132.
- **Satia, S. P. S.**, Miglani, V., Gambhir, V. (2019). Teacher Attrition Prediction Model and Analysis of the Associated Factors. International Conference on Computing, Power and Communication Technologies(pp. 458-462). IEEE.

Technical Skills

Coding Languages: C++, Python, Java, Golang, C#, Typescript, Shell Scripting, Powershell

Technical skills: Cloud Computing (Azure), Ansible, Terraform, NodeJS, Linux, Web Development, Agile, AzDevops, CI/CD, Data Structures Algorithms