VAMSI KRISHNA REDDY SATTI

CONTACT
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WORK EXPERIENCES

SAMSUNG **Samsung Electronics (HQ), South Korea** *(Onsite)*   Oct 2020 — Present
Mobile eXperience (MX) Division - Artificial Intelligence (AI) Team   *(Software Engineer)*

Language — Java, Kotlin | Tools — Spring, Mockito, GitHub Actions, Docker, Kubernetes

- Working at the intersection of Bixby (AI cloud) and SmartThings (IoT cloud) to control IoT devices *via* voice.
- Involves development of microservice to search and execute target devices from NLP-tagged voice query.
- Experience with handling large code involving new features, unit tests, bug fixes, deployments *etc.* with broad experience on complete lifecycle of projects with backend services from ideation to deployment.

- Developer for the Bixby Home Platform ⬈ - primarily involved with the backend code and infrastructure.
- Lead developer for device-search microservice on Bixby Home Platform, with fuzzy & advanced search.
- Core developer on new *upcoming* features with work on backend microservices with graph databases.

- Received EX (Excellent - 100%) grade in 2022 annual work review, limited to less than 10% of employees.
- Cleared both NLP and Computer Vision (Advanced) within Samsung's internal AI certification program.
- Achieved S/W Professional Level and Data Science Level 2 internal certifications with monetary benefit.

Samsung Electronics (HQ), South Korea *(Onsite)* | *Software Engineer Intern*   May 2019 — Jul 2019
Ubisoft Entertainment, India *(Onsite)* | *Game Developer Intern*   May 2018 — Jul 2018

EDUCATION

Indian Institute of Technology (IIT) Bombay, India *(Onsite)*   Aug 2016 — Nov 2019
B.Tech. in Computer Science and Engineering | CGPA: 9.13 / 10   *(Early Graduate)*

Competitive Programming — C++ | Machine / Deep Learning — Python, NumPy, PyTorch

- Teaching Assistant (TA) in CS-152: Abstractions and Paradigms course with Prof. Sanyal in Spring 2018.
- Project: Human Pose Estimation using anchor-pose approaches to FAIR's Detectron with Prof. Arjun Jain
- 10/10 in programming component of all Computer Science courses I had taken during my entire study.
- 10/10 in Advanced Machine Learning, Deep Learning, Computer Vision, Linear Algebra, Computer Logic

GITHUB REPOSITORIES

Screen Translator (32★) ⬈ Android App built with Kotlin, modern Jetpack tools and Compose UI ~ *active*
Algorithm Library ⬈ Collection of my algorithm implementations in Kotlin for coding competitions ~ *active*
Project ZEN ⬈ My website of knowledge across software development (auto-deployed with CI/CD) ~ *active*

Reinforcement Learning ⬈ - UCB, KL-UCB, Thompson Sampling. Howard's Policy Iteration for MDP	2019
AI & Machine Learning ⬈ - ConvNets, SVM, K-means, Ensembles, Learning Agents, A* search *etc.*	2019
pix2pix: Image-to-Image Translation ⬈ - paper by Phillip Isola *et al.* implemented using PyTorch	2019
Compilers ⬈ - Scanner, parser and a semantic analyzer for a subset of C language using Flex, Bison	2019
Database Systems ⬈ - SQL queries, schema design for mobile/web apps, use of connectors (JDBC)	2018
Computer Networks ⬈ - Implemented Spanning Tree Protocol, SimpleFTP using sockets *etc.*	2018
Computer Graphics ⬈ - A tiny music-box animation rendered and created wholly using OpenGL	2018
Railway Signal Controller ⬈ - First experience with hardware languages (VHDL) over FPGA board	2018
Image Quilting: Texture Synthesis ⬈ - paper by Alexei A. Efros *et al.* implemented using MATLAB	2018
Image Processing & Editing Tool ⬈ - Spatial image processing like blur, histogram equalization *etc.*	2017
Eclipse OJ ⬈ - First experience on development of full-stack Django web application and UI	2017
Othello Game ⬈ - First experience on rapid development using docs of a new *lisp-like* language	2017

COMPETITIVE PROGRAMMING

ICPC ⬈   Rank 27 - 2020 Amritapuri (Online) | Rank 11 - 2020 Kharagpur (Online)
Rank 70 - 2019 Amritapuri | Rank 36 - 2018 Amritapuri | Rank 18 - 2018 Chennai

Google Codejam ⬈ 2022 Round 1C - Rank 603   **Google Foobar**   Finished all 5 levels in 2018

Google Kickstart ⬈
2022 Round C - Rank 62	2022 Round A - Rank 155	2021 Round H - Rank 57
2021 Round G - Rank 83	2020 Round F - Rank 386	2019 Round G - Rank 159
2019 Round F - Rank 79	2019 Round E - Rank 75	2018 Round A - Rank 151

Meta HackerCup ⬈
2023 Round 1 - Rank 467	2022 Round 2 - Rank 1232	2021 Round 2 - Rank 1690
2019 Round 2 - Rank 836	2018 Round 2 - Rank 967	

Project Euler ⬈ Rank 2266 (top 0.21%), by solving 219 challenging mathematics + algorithm problems
Codeforces ⬈ Rating 2053 *max.* (Candidate Master) — Best ranks include 16, 77, 81 in Div 2 contests
Codechef ⬈ Rank 988 (Global) - Best contest rankings include World Rank 8, 15, 19, 20, 34, 41, 55
SnackDown 2021 Round 1A - Rank 63 | DS & Algorithms (Advanced) Certified 2020

ACHIEVEMENTS

IIT-JEE Advanced ⬈	Rank 20 across all of India among 1.2 million examinees for admission into IITs	2016
NEST	Rank 2 across all of India, the test for science university admissions (IISERs)	2016
AP-EAMCET ⬈	Rank 1, the test for university admissions by Govt. of Andhra Pradesh, India	2016
TS-EAMCET	Rank 10, the test for university admissions by Govt. of Telangana, India	2016
KVPY Fellowship	Rank 26, by DST, Ministry of Science and Technology, Government of India	2014
NTSE Scholarship	Rank 158, by NCERT, Ministry of Education, Government of India	2012

LANGUAGES

Trilingual — తెలుగు, English, हिन्दी | **Beginner** — 한국어 *TOPIK Level 2* ($^{191}/_{200}$)   **CITIZENSHIP**   India