




# VAMSI KRISHNA REDDY SATTI

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WORK EXPERIENCES	 <b>Samsung Electronics (HQ), South Korea (Onsite)</b> <i>Mobile eXperience (MX) Division - Artificial Intelligence (AI) Team</i>	Oct 2020 – Present (Software Engineer)	
	Language – Java, Kotlin   Tools – Spring, Mockito, GitHub Actions, Docker, Kubernetes, Gremlin - Working at the intersection of Bixby (AI cloud) and SmartThings (IoT cloud) to control IoT devices <i>via</i> 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 <i>etc.</i> 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 <i>upcoming</i> 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 <u>S/W Professional Level</u> and <u>Data Science Level 2</u> internal certifications with monetary benefit.		
	<b>Samsung Electronics (HQ), South Korea (Onsite)</b>	<i>Software Engineer Intern</i>	May 2019 – Jul 2019
	<b>Ubisoft Entertainment, India (Onsite)</b>	<i>Game Developer Intern</i>	May 2018 – Jul 2018
EDUCATION	 <b>Indian Institute of Technology (IIT) Bombay, India (Onsite)</b> <i>B.Tech. in Computer Science and Engineering   CGPA: 9.13 / 10</i>	Aug 2016 – Nov 2019 (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 - <u>10/10</u> in <u>programming</u> component of all Computer Science courses I had taken during my entire study. - <u>10/10</u> in Advanced Machine Learning, Deep Learning, Computer Vision, Linear Algebra, Computer Logic		
GITHUB REPOSITORIES	<b>Screen Translator</b> – Android App built on Kotlin and modern Jetpack tools including Compose UI ~ <i>active</i> <b>Algorithm Library</b> – Collection of my algorithm implementations in Kotlin for coding competitions ~ <i>active</i> <b>Project ZEN</b> – My website of knowledge across software development (auto-deployed with CI/CD) ~ <i>active</i> <b>Reinforcement Learning</b> – UCB, KL-UCB, Thompson Sampling. Howard's Policy Iteration for MDP 2019 <b>AI &amp; Machine Learning</b> – ConvNets, SVM, K-means, Ensembles, Learning Agents, A* search <i>etc.</i> 2019 <b>pix2pix: Image-to-Image Translation</b> – paper by Phillip Isola <i>et al.</i> implemented using PyTorch 2019 <b>Compilers</b> – Scanner, parser and a semantic analyzer for a subset of C language using Flex, Bison 2019 <b>Database Systems</b> – SQL queries, schema design for mobile/web apps, use of connectors (JDBC) 2018 <b>Computer Networks</b> – Implemented Spanning Tree Protocol, SimpleFTP using sockets <i>etc.</i> 2018 <b>Computer Graphics</b> – A tiny music-box animation rendered and created wholly using OpenGL 2018 <b>Railway Signal Controller</b> – First experience with hardware languages (VHDL) over FPGA board 2018 <b>Image Quilting: Texture Synthesis</b> – paper by Alexei A. Efros <i>et al.</i> implemented using MATLAB 2018 <b>Image Processing &amp; Editing Tool</b> – Spatial image processing like blur, histogram equalization <i>etc.</i> 2017 <b>Eclipse OJ</b> – First experience on development of full-stack Django web application and UI 2017 <b>Othello Game</b> – First experience on rapid development using docs of a new <i>lisp-like</i> language 2017		
COMPETITIVE PROGRAMMING	 <b>ICPC</b>	Rank 27 - 2020 Amritapuri (Online)   Rank 11 - 2020 Kharagpur (Online) Rank 70 - 2019 Amritapuri   Rank 36 - 2018 Amritapuri   Rank 18 - 2018 Chennai	
	<b>Google Codejam</b>	2022 Round 1C - Rank 603	<b>Google Foobar</b> Finished all 5 levels in 2018
	<b>Google Kickstart</b>	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	
	<b>FB Hacker Cup</b>	2021 Round 1 - Rank 700   2019 Round 2 - Rank 836   2018 Round 2 - Rank 967	
	<b>Project Euler</b>	Rank 2200 (top 0.21%), by solving 216 challenging mathematics + algorithm problems	
	<b>Codeforces</b>	Rating 2053 <i>max.</i> (Candidate Master) – Best ranks include 16, 77, 81 in Div 2 contests	
	<b>Codechef</b>	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	<b>IIT-JEE Advanced</b>	Rank 20 across all of India among 1.2 million examinees for admission into IITs	2016
	<b>NEST</b>	Rank 2 across all of India, the test for science university admissions (IISERs)	2016
	<b>AP-EAMCET</b>	Rank 1, the test for university admissions by Govt. of Andhra Pradesh, India	2016
	<b>TS-EAMCET</b>	Rank 10, the test for university admissions by Govt. of Telangana, India	2016
	<b>KVPY Fellowship</b>	Rank 26, by DST, Ministry of Science and Technology, Government of India	2014
	<b>NTSE Scholarship</b>	Rank 158, by NCERT, Ministry of Education, Government of India	2012
LANGUAGES	Trilingual – తెలుగు, English, हिन्दी   Beginner – 한국어 TOPIK Level 2 ( <sup>191</sup> / <sub>200</sub> )		CITIZENSHIP India