


VAMSI KRISHNA REDDY SATTI

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CONTACT Email: vamsi3@outlook.com | Gmail: vamsi2519915@gmail.com | Website: vamsi3.github.io |
Current Residence: Suwon-si, Gyeonggi-do, South Korea | LinkedIn: [vamsi3](#) | GitHub: [vamsi3](#)

WORK EXPERIENCES

 **Samsung Electronics (HQ), South Korea (Onsite)** Oct 2020 – Present
Software Engineer | Artificial Intelligence (AI) Team, Mobile Division

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.
- Experience with handling large code involving new features, unit tests, bug fixes, deployments, etc., with broad experience in complete lifecycle of projects with backend services from ideation to deployment.
- Worked on a microservice to search and execute devices through SmartThings from user's IoT utterance.
- Developer for the Bixby Home Platform — primarily involved with the backend code and infrastructure.
- Refactored new device-search microservice from existing services on Bixby Home Platform during internal cloud migration. Developed new features supporting fuzzy & advanced search after migration.
- Working on new recommendation features together with the product team. Developing new microservices with graph databases to support the new personalized recommendations for users in Bixby.
- Developer for new LLM integration into Bixby. Member of initial developer task-force to integrate LLMs into Bixby (12 out of 300 in the AI Team) and develop technical foundations toward product goals.
- Currently part of a core team working on IoT device control using new Bixby with LLM. [details redacted]
- Received EX (Excellent - 100%) grade in 2022,24 annual reviews, 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

- India's most reputed and competitive university for STEM, and especially Computer Science.
- 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

SELECT PROJECTS

Screen Translator (36★) — 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
Eclipse OJ — First experience on development of full-stack Django web application and UI 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 2258 (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, Govt. of India 2014
NTSE Scholarship — Rank 158 with monetary benefit by Ministry of Education, Govt. of India 2012

LANGUAGES

Trilingual — తెలుగు, English, हिन्दी | Beginner — 한국어 TOPIK Level 2 (191/200) | CITIZENSHIP India