

# VAMSI KRISHNA REDDY SATTI


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**WORK EXPERIENCES**  **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, Gremlin
- 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** – Android App built on Kotlin and modern Jetpack tools including 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  
**FB Hacker Cup** 2021 Round 1 - Rank 700 | 2019 Round 2 - Rank 836 | 2018 Round 2 - Rank 967  
**Project Euler** Rank 2200 (top 0.21%), by solving 216 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