

# SATWIK VATS

Course: B.E. (Hons.), Elect. & Instrumentation, 2023

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CGPA: 7.17



ACADEMIC DETAILS							
COURSE	SPECIALIZATION	INSTITUTE/COLLEGE	BOARD/UNIVERSITY	SCORE	YEAR		
CLASS XII	SCIENCE	Kendriya Vidyalaya Ordnance Factory Chanda	CBSE	90.6 %	2018		
CLASS X	GENERAL	D.A.V Public School	CBSE	10 CGPA	2016		

Subjects / Electives	Data Structures and Algorithms, Object Oriented Programming, Operating Systems
Technical Proficiency	C++, Python, Kotlin, Java, Github, Docker, SQL, MSPowerPoint, Firebase, MS Excel

### SUMMER INTERNSHIP / WORK EXPERIENCE

# Student Trainee, Samsung R&D Institute India - Bangalore (SRI-B)

Jul 2022 - Dec 2022

SRI-B is the largest R&D Center outside of South Korea and a key innovation hub in the Samsung group.

- Enhanced Software Architecture Maturity Score of a code module by 24%, via changes in Preprocessor Flags.
- Wrote and compiled Unit Test Cases for 50 non-API and 30 API Functions using Pytest and Mock Object libraries.
- Fixed 36 Bugs in a Machine Learning Framework, improving code Maintainability and Reliability by 14% and 8%.

### Research Intern, CSIR - CEERI, Pilani

Jan 2022 - Apr 2022

CEERI is a research institute and a constituent laboratory of Council of Scientific and Industrial Research, New Delhi.

- Trained a Resnet-18 model on a Kaggle sample dataset of 400 for Covid-19 prediction using chest X-Ray images.
- Applied the model to a Federated Learning framework addressing the client's data privacy concern.
- Used FedProx Optimization Technique on the model and improved Convergence Rate by 8% for Cifar-10 dataset.

#### **PROJECTS**

# Personal Blog and Portfolio - Continuous Integration/Continuous Deployment

Jun 2021 - Present

Built Personal Blog-cum-Portfolio using Hugo, deployed using Netlify, and automated updation using Github Actions.

### POSITION OF RESPONSIBILITY

# Coordinator - Computer Literacy Programme, NSS - BITS Pilani

Jul 2021 - May 2022

NSS, BITS Pilani is a student-run social service organization which strives to improve the lives of rural Pilani.

- Trained 60+ beneficiaries including adults and school students for Govt certification exams like CCC and BCC.
- Launched a women-centric technology training initiative called Naari Computer Shiksha at a local stitching centre.
- o Conducted cybersecurity awareness lecture series for 500+ viewers by esteemed researchers from Cisco and McAfee.

### Joint Coordinator (Events) - Sports Publicity and Design Team

May 2021 - Apr 2022

A team responsible for developing a marketing campaign for BOSM, the annual Sports Fest of BITS Pilani.

- Involved in Facebook streaming of BOSM Blitz, an E-Sports Tournament which saw a participation of 150+ teams.
- Curated hoarding banners, standees and digital content across all the sporting events conducted in BITS Pilani.
- Managed the BOSM Facebook and Instagram handles with 4000+ follower count and 2000+ footfall per post.

### AWARDS AND RECOGNITIONS

# Software Competency Test - Advanced | Samsung R&D Institute, Bangalore

Nov 2022

Cleared the Software Competency Test (SWC) - Advanced (DSA) in my first attempt as a part of recruitment process.

CERTIFICATIONS					
CERTIFICATION	CERTIFYING AUTHORITY	DESCRIPTION			
Python Specialization   University of Michigan	Coursera	Data structures   Networked APIs   Databases			

### **EXTRA CURRICULAR ACTIVITIES**

#### Drama

Performed in the annual Cultural Nite organized by Maharashtra Mandal, BITS Pilani during my freshman year.

# Digital Art

Made Amateur Digital Portraits of Ficitonal characters using Adobe Illustrator and Procreate for my Art-Page.