Piyush P. Patole

Nagpur | piyush.patole@tcs.com | +91-9146871415 | https://www.linkedin.com/in/piyushpatole7/
https://github.com/Piyush-Patole

Experience

Associate System Engineer, TCS Nagpur(1.5+ year)   01/2024 - Present

- I work as an HMI developer for a reputed Japanese OEM for In-Vehicle Infotainment to develop **GUI** for Vehicle features like HVAC, Camera using **CGI Studio Framework** and **Adobe Photoshop** in collaboration with Solution Architect and Client.
- Analyze the client requirements and convert them in **HMI screens** and improvise them by discussing the usability from **UX** perspective with the client. Also developing UI and understanding of design on HMI level (**MVC Architecture**).
- Collaborate with **Backend Development** team to design and implement Highly Efficient and Optimized Logic in **C++**(manually coded or auto code generated) so as to to maintain a seamless User Experience in the system and not hampering the **User Experience**.
- Conduct various levels of **Testing** to identify **Bugs** in the software by evaluating, verifying and validating developed software on the **Hardware** with **Simulators**. Analyzing the impact of these bugs on the other features functionally and from UX perspective.
- Utilizing **GIT** for version control of the software, managing resources, and adhering to branch hierarchies for efficient development workflows. Also experience with Tools like **JIRA**, **CANoe Simulator**, **WinSCP**, **Putty**.

Digital Signal Processing Intern , IIT Bombay(6 months)   07/2021 - 12/2021

- Implemented **SRCNN** and **ESPCN** models in Python using TensorFlow and Keras, improving image resolution by **15-20%** optimised PSNR on DIV2K dataset.
- Experimented with **SRGAN architecture**, training models for 50-100 epochs using Adam optimizer (lr=0.001) with **MAE+MSE loss functions**.
- Optimized model performance by **tuning hyperparameters** (batch size, learning rate scheduling, epochs etc.) **reducing training time** by 25%.
- Utilized **OpenCV** for image preprocessing and Matplotlib for visualizing super-resolution results and Collaborated on **GIT** version control system with weekly code reviews and progress tracking.

Education

Pune Vidhyarthi Griha's College of Engineering, Pune, B.E (E&TC) Hons.(AIML),   2019-23
- GPA: 8.55/10

Rotary Junior College of Science and Commerce, Khed, 12th (CBSE),   2017-19
- Percentage: 80.20%

L.T.T English Medium School, Khed, 10th (SSC)   2016-17
- Percentage: 97.40%

Skills

Programming Languages : Core Java, C++, Python

Domain Areas: HMI(Human Machine Interface), Automotive In-Vehicle Infotainment, Testing

Processes: Agile with Scrum

Defect Management Tools : JIRA

Version Control System : GIT

Frameworks : CGI, Open CV, Tensorflow, Keras

Tools : Adobe Photoshop, CGI Studio, Putty, Winscp, CANoe Simulator