

ROHAN SRIDHAR PARTHASARATHY

rohan.parth07@gmail.com | +46 73840 2500 | [LinkedIn](#) | [Portfolio](#) | Stockholm, Sweden

KTH Master's student in Information and Network Engineering, specializing in the Communication track. Backed by a Bachelor's degree in Electronics, with technical focus on Signal Processing, Communication, and Machine Learning. Passionate about AI-driven product development, engineering, and continuous learning.

EDUCATION

Master's of Science in Information and Network Engineering Stockholm, Sweden
KTH Royal Institute of Technology 2025 - 2027
Relevant Coursework: Signal Theory, Digital Signal Processing, Digital Communication, Advanced Digital Communication, Queuing Theory and Teletraffic Systems

Bachelor's of Technology in Electronics and Communication Engineering Bengaluru, India
Amrita Vishwa Vidyapeetham 2021 - 2025
Relevant Coursework: Signals and Systems, Digital Signal Processing, Analog Electronic Circuits, VLSI Design, Embedded Systems, Digital Communication, Machine Learning, Deep Learning

TECHNICAL SKILLS

- **Software and Tools:** MATLAB, LabVIEW, Git, LTspice, orCAD, MS Office tools
- **Hardware and Embedded:** Siemens PADS, ModelSim, Cadence tools
- **Programming:** Python, C, C++

PROFESSIONAL EXPERIENCE

Ericsson AB, Stockholm, Sweden - Summer Internship Jun 2026 - Present

- Contribute to the development and testing of Ericsson's customer acceptance platform, ensuring releases meet quality criteria before deployment to operators.
- Rotate through cross functional R&D teams to analyze and optimize acceptance workflows as they transition from engineering to customer handoff.

Aeronautical Development Establishment, Defence Research and Development Organisation, Bengaluru, India - Internship Jun 2024 - Jul 2024
(India's national agency for military R&D, the Indian equivalent to FMV)

- Spearheaded the integration of multiple sensors and storage components using **UART, SPI and CAN** communication protocols, ensuring reliable data acquisition for the autopilot system of UAVs.
- Implemented Verilog-based digital designs on FPGA, including **Kalman filters and PID control** algorithms.
- Designed schematics in **Cadence OrCAD** and PCB layouts in **Siemens PADS** and generated Gerber files.

ACADEMIC PROJECTS

End-to-End Physical Layer (PHY) Design for a QPSK Transceiver Nov 2025 - Jan 2026

- Developed a QPSK transceiver in **MATLAB** comparing rectangular and Root Raised Cosine (RRC) pulse shaping for spectral efficiency.
- Implemented synchronization algorithms with a **0.16%** training overhead, ensuring stable phase and timing recovery for **10,016-bit** packets.
- Analyzed eye diagrams to measure the impact of noise and ISI, ensuring the receiver maintained a sufficient noise margin for reliable data detection.

FIR Filter Design and Analysis for a Two-Channel Audio Equalizer Nov 2025 - Dec 2025

- Completed the design and modeling of a complementary two-channel equalizer in **MATLAB**, developed a linear phase, Type 1 FIR filter that achieved a stop-band attenuation of **40 dB**.
- Validated fixed-point viability for the ESP32-S3 platform by quantizing filter coefficients, and achieved an **SQNR of 56.5 dB**.
- Implemented and validated the fixed-point structure and filter coefficients onto the **ESP32-S3** platform.

Artifact Removal in EEG signals (Bachelor Thesis) Feb 2024 - Sep 2025

- Managed the entire data acquisition process, collecting EEG signals from **twenty five participants** using the **Neuphony EEG Flex Cap (8-channel EEG device)** to build a real-world dataset for model development.
- Developed an automated hybrid machine learning model (SVM) and Independent Component Analysis (ICA) in **Python** to remove ocular artifacts from EEG signals.
- Successfully deployed and validated the model in a real-time EEG processing pipeline, confirming signal quality using quantitative metrics such as **Shannon Entropy, Fractal Dimension and PSD**.

EXTRA-CURRICULARS

Career Fair Host at THS Armada (Oct 2025 - Nov 2025) Managed corporate partner experience for industry leaders including **Mycronic** and **PTS (Post och Telestyrelsen)**. Coordinated logistics and on-site relations for Scandinavia's largest student career fair.