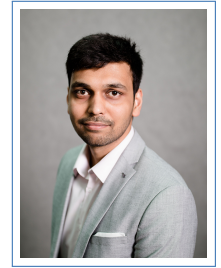# Khaleelulla Khan Nazeer

Curriculum Vitae

✉ tokhaleelkhan@gmail.com
🖸 www.khaleelkhan.com/

Seeking opportunities in field of electronics with focus on hands-on product development, test and debug. Visit khaleelkhan.com for more information and portfolio

Education

2016–2018 **Masters in Information and Communication Engineering**,
Technische Universität Darmstadt, Darmstadt, Germany.
GPA: 1.78

2009–2013 **Bachelor of Engineering in Electronics and Communication**,
Visvesvaraya Technological University, Belgaum, India.
GPA : 2.1

Experience

Vocational

Mar 2018 – **Master Thesis at TU Darmstadt**,
Sep 2018 INTEGRIERTE ELEKTRONISCHE SYSTEME (IES) – TU DARMSTADT.
Project Title: "Design and analysis of a 0.7 to 2.3 GHz adjustable, high spectral purity CMOS oscillator"

○ Tools used: MATLAB, Cadence Virtuoso

Jun 2017 – **Studentische Hilfskraft - Embedded Systems (Hardware)**,
May 2018 G.I.N. GMBH, Darmstadt.
○ Build and test embedded hardware prototypes.
○ Performing tests on newly developed circuits.
○ Developing new production test environment on python.

Dec 2016 – **Student Research Assistant**,
Mar 2017 SIGNAL PROCESSING GROUP (SPG) – TU DARMSTADT.
Project Title: "Implementing Machine Learning Algorithms And Statistical Features For Sports Analytics"

○ Programming language used: Python
○ Extract Features from real world data recorded from 3D accelerometer, 3D gyroscope and attitude (orientation) measurements
○ Apply Feature selection and Machine learning algorithms to the extracted features
○ Train Supervised Machine learning model using recorded data
○ Predict the Sport score and compare with human scorer

May 2014 – Sep 2016	**Post Silicon Validation Engineer**,

TESSOLVE SEMICONDUCTORS PRIVATE LIMITED, Bangalore (India).

Worked as a contractor for Texas Instruments, India

- Specialize in Bench Characterization / Evaluation
- Test and Characterization of High speed analog devices (ADC)
- Characterize device performance and prepare characterization report
- Write and debug test programs for device characterization
- Analyze test data to understand the cause of device failures, and define solutions. Identify and resolve device performance issues promptly
- Generating Data sheet Specifications and Plots
- Development of test environment for each device
  - Understand device specifications and plan tests
  - Design circuit necessary for bring up of test device
  - Test fresh PCBs and plan modifications if necessary
- Co-ordinate with ATE Engineers to ensure valid test and characterization
- Develop new techniques to streamline characterization process

Miscellaneous

Apr 2017 – July 2017	**Advanced Integrated Circuit Design Lab**,

INTEGRATED ELECTRONIC SYSTEMS – TU DARMSTADT.

Achieved score of 1.0

- Design a 3-bit DAC using MOSFET 90nm technology
- Implement the circuit and simulate in Cadence Virtuoso
- Design layout for the circuit.
- Gain knowledge of Analog and Mixed signal design flow.

Aug 2017	**Hardware Description language (HDL) Lab**,

INTEGRATED ELECTRONIC SYSTEMS – TU DARMSTADT.

Achieved score of 1.7

- Use Verilog to model a 5 stage pipelined processor that is defined on ARM Thumb instruction set level.
- Go through the digital design process encompassing specification, register-transfer-level modeling, simulation/verification, synthesis and gate-level simulation.
- Evaluate the system's performance and resolve bottlenecks.
- Practice group work, documentation and presentation techniques.
- Apply course knowledge and use industry-grade tools, particularly: Modelsim (Mentor Graphics) and Design Compiler (Synopsys)

Programming skills

Python	★★★★☆
C / Embedded C	★★★★☆
Verilog	★★★☆☆

Tools

Cadence Virtuoso	★★★★☆
KiCad	★★★☆☆
Git	★★★★☆
Eclipse CDT	★★★☆☆
MATLAB	★★★☆☆
LabView	★★☆☆☆

Hardware skills

Soldering	★★★☆☆
Lab equipment	★★★★☆

Languages

English	★★★★☆
German	★★☆☆☆