MUKHAMMADDIN ZINADDINOV // "MZ"

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PROFESSIONAL EXPERIENCE

INTEL   Chandler, AZ

Module Development Engineer   **6/13/2022-Present**
- Managing the development of test interface units, ensuring optimal board design for high-speed and high-current draw tests, both HDI/PTH. Worked on PCBs with 30+ layers and signal edges significantly below 100ps. Exposed to high-volume manufacturing as well as high-reuse design considerations.
- Routinely engaged in schedule planning, vendor management, identifying and clearing risks, and delivering time-sensitive collaterals. Worked closely with design and fabrication vendors to meet board DFM/DFA requirements, iteratively improve designs, select board materials, plan stack-ups, and qualify new vendors.
- Proposed and executed a process automation plan by putting together a proof of concept, developing a new process working closely with our team and design vendors, writing automation tools, training the team, and gradually phasing in the new process.

ANALOG DEVICES   Cary, NC

Senior LTspice Modeling Engineer   **11/30/2020-6/10/2022**
- Developed LTspice behavioral models for ADI's power products, such as switching mode power supplies, linear power supplies, PMICs, and charge controllers. Collaborated with Design Engineers as well as Application Engineers to iteratively validate and release the behavioral circuit designs.
- Passion project:
    - Automated SPICE modeling process using MATLAB. Wrote a livescript to automate converter compensation tuning for voltage-mode and current-mode controlled converters, PLL dynamic response, internal oscillator modes.

DIAGNOSYS TEST SYSTEMS (AQ. BY ASTRONICS TEST SYESTEMS)   Westford, MA

Senior Applications Engineer   **4/6/2020-11/27/2020**
- Created and implemented functional test strategies for high-voltage train propulsion inverters and IGBT drivers, improving testing accuracy and reliability.
- Engineered analog and digital boards for a new product line of consolidated benchtop test equipment (CBTE) using Altium Designer for schematic capture, selected components, designed for signal and power integrity.

EDUCATION

UNIVERSITY OF MASSACHUSETTS LOWELL   Lowell, MA
PhD // Electrical Engineering with focus in Semiconductor Devices and Power Electronics // GPA 3.81   **2017-2020**

UNIVERSITY OF MASSACHUSETTS LOWELL   Lowell, MA
BS // Electrical Engineering with Honors Distinction // GPA 3.78   **2014-2017**

ADDITIONAL INFORMATION

- Electronics Lab Equipment Experience (2-3 years). Good knowledge and handling of lab equipment, i.e. oscilloscopes, power supplies, multimeters, and function generators.
- Experience working in Allegro Cadence, SPICE, MATLAB, and SILVACO.
- Experience working with Python and other OOP languages.
- An article by The Steppe (in Russian), a popular Kazakhstani magazine, featuring the youngest PhD in Kazakhstan. Look who is on the cover! https://the-steppe.com/lyudi/samyy-molodoy-doktor-nauk-v-kazahstane-muhammaddin-zinaddinov-o-svyazi-fiziki-s-filosofiey-vliyanii-kultury-na-nashi-deystviya-i-tyage-na-rodinu