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Dante Vasudevan

EXPERIENCE

08/2020 – 05/2024 **Student**, Electrical Engineering – University of Illinois

- NIR VCSEL Research supervised by Prof. Kent Choquette
  - Near-Field and Far-Field Characterization on Coupled Photonic Crystal VCSELs
  - Built a Model to analyze the fundamental gaussian mode of Coupled Index-Guided VCSELS
- Worked in a Class 1000 Clean Room
  - Built BJTs, Diodes, and FETs on silicon wafers using fabrication techniques (Oxidation, Photolithography, Etching, Ion Diffusion, and Metallization)
- Control Systems Research under Yogi Patel
  - Modeled and Built Inverted Pendulum
  - Presented Poster at PURE Symposium

06/2023 – 08/2023 **Intern/Engineer**, ASIC Design – Auradine

- Co-Simulation and Co-Design with Chip-Package-Board Systems
- Performed PVT Timing Analysis for various technology nodes
- Performed PowerDC Simulations for the ASIC
- Explored thermoelectric power reduction ideas for the system

05/2021 – 08/2021 **Intern/Engineer**, Robotics – Ford Motor Company

- Developed CommunicAV, a low-cost testing platform for autonomous vehicle interaction with Game Theory Algorithms
- Built the Mini Vehicles
- Built a ROS2 Framework to support communication, mapping and localization, and negotiation

EDUCATION

09/2025 – Present **M.S. in Semiconductor Engineering**, Northeastern University - Boston, MA

Graduated 05/2024 **B.S. in Electrical Engineering**, University of Illinois - Urbana, IL

- Recipient of Samsung Technology Track Scholarship
- Relevant coursework includes:
  - Semiconductor Electronics, Semiconductor Device Fabrication, Photonics, Optics, Plasmas, E&M Fields and Waves 1 and 2, Digital Systems (FPGA Course), Analog and Digital Signal Processing, and Microelectronics (Small-signal analysis)

Graduated 06/2020 **High School Degree**, Willow Glen High School – San Jose, CA

- FIRST Robotics

SKILLS

Software: Python, MATLAB, Linux, SystemVerilog Basics, ROS2 Foxy, Image Processing, Git

Electronics: HSPICE, LTSPICE, TCAD, KiCad (PCB Design), KLayout (PIC Design), PowerDC Basics

Tools: Spectrometer, OSA, SPA, Oscilloscope, Soldering Iron

Languages: **English:** Native
Spanish: Professional fluency