PAVIN SINGH VIRDEE

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EDUCATION

California Polytechnic State University, San Luis Obispo *Apr. 2021 – Aug. 2022*
Master of Science, Electrical Engineering – Specialization: RF/mmWave Design & Electromagnetics
Cumulative GPA: 3.684 || Major GPA: 4.0 || 4+1 Honors Program || Graduate Teaching Associate

California Polytechnic State University, San Luis Obispo *Sept. 2017 – Mar. 2021*
Bachelor of Science, Electrical Engineering
Cumulative GPA: 3.137 || Major GPA: 3.498 || Multi-quarter Dean's List Candidate
Affiliations: IEEE Member, MTT-S Member, Delta Chi Fraternity, Northrop Grumman Collaboration Project

WORK EXPERIENCE

Astranis Space Technologies *Mar. 2022 – Present*
RF Design Engineer – Associate || San Francisco, CA

- Research, design, prototype, and bring-up of RF/mmWave electronic space hardware.

Tesla *Sept. 2021 – Dec. 2021*
RF/EMC Compliance Engineering Intern || Fremont, CA

- Radiated/Conducted Emissions, Wireless, and ESD testing, design, and de-bug of numerous Tesla products.
- Full bring-up and automation of NRTL quality EMC semi-anechoic chamber utilizing Rohde & Schwarz software.

Keysight Technologies *Jun. 2021 – Sept. 2021*
R&D RFIC Design Engineering Intern || Santa Rosa, CA

- Frequency (×3) Multiplier full chip design at 6G mmWave frequencies (110+ GHz) in a III-V HBT process.
- Performed initial design research, full schematic/layout design & optimization, EM modeling & simulations, and documentation (datasheet, design manuals, etc.).

Amazon *Jun. 2020 – Sept. 2020*
Hardware Development Engineering Intern || Remote

- End-to-end design and bring-up of a custom PCBA that enables users to conduct a high-performance load-transient test.
- Developed the system architecture, component selection, schematics, & layout for the board in Altium Designer.

Nevro *Jun. 2019 – Aug. 2019*
Advanced Technologies Electrical Engineering Intern || Redwood City, CA

- Troubleshooted EMI and tested the functionality of a high performance electrical system that amplifies, filters, and records extremely small signals.
- Designed DC portable power configuration, analog, and digital filters to power the system and combat EMI.

PROJECTS

Master's Thesis: Highly Power Efficient Microwave Frequency Synthesizer *Jan. 2022 – Present*

- Design of a highly power-efficient frequency synthesizer with the implementation of a custom phase-locked loop and discrete components.

Senior Project: Survey and Design of Microwave Low-Noise Amplifiers *Sept. 2020 – Jun. 2021*

- Design of three different LNA topologies utilizing a SiGe HBT PDK by Infineon operating from 3.4 to 3.8 GHz.

TECHNICAL SKILLS

RF and PCB Design/Modeling	ADS, Momentum, HFSS, EMPro, Altium Designer, SPICE
Software/Programming	MATLAB, Embedded C, Python, PCAN, LabVIEW, Elektra
Laboratory Skills/Equipment	VNA, Spectrum Analyzer, Power Meters, Oscilloscope, EMI Receiver, Power Supplies, ESD Gun, Signal Generators