Priyanka Dilip

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EDUCATION

COLUMBIA UNIVERSITY | New York, NY   *2023 - Ongoing*
- **Doctoral Studies, Electrical Engineering**: Advisor - Prof. K. Bergman
- **Recipient, Dean's Office Fellowship:** French Award, Fall 2023

STANFORD UNIVERSITY | Stanford, CA   *Class of June 2023*
- **Masters of Science, Electrical Engineering**
- **Recipient, U.S. Dept. of Energy Traineeship:** IC Design for High-Energy Physics

CORNELL UNIVERSITY | Ithaca, NY   *Class of May 2021*
- **Bachelors of Science, Electrical and Computer Engineering**

MONTGOMERY H.S. | Princeton, NJ   *Class of June 2018*
- **Valedictorian** | National Merit Winner '18 | Columbia Univ. Science Honors Program Scholar '15-'18

SPECIALIZED SKILLS   github.com/PriyankaDilip

Hardware: IC Design+Test flows, Catapult HLS, CUDA. | **Software/ML**: Java/Python, TensorFlow, SQL, Docker

WORK + RESEARCH EXPERIENCE

Fermi National Laboratory, QUANTUM ASIC R&D INTERN   *.... 2022-2023*
- *AI-in-Pixel*: Implemented on-detector PCA (algorithm to tapeout) for X-Ray Imaging IC, 65nm process.
- *Collider Pixel Array*: Built testing simulation, pre- & post-layout, for mixed-signal cells, 28nm process.

Stanford VLSI, GRADUATE STUDENT MEMBER   *.....Fall '21-Spring '22*
- Accelerate Group: Compressing on-chip Transformer training towards 2nd tapeout of AI accelerator *CHIMERA*.
- EE 372, Independent VLSI Design: Partnered Tapeout in SW130nm-*Grapevine: An Asynchronous Numerical Interpolation Accelerator using Sparse Grids*. Personally worked on RTL design, physical design, verification.

Lockheed-Martin Sikorsky, Sensing+Monitoring Systems, TECHNICAL SR. SPECIALIST *.... Summer 2021*
- Led testing-driven optimization of sensor-array for identifying helicopter engine failure: amplifying circuitry, data acquisition, signal processing. Authored operating procedure submitted to military customer.

Cornell Systems Architecture & Infrastructure Lab (SAIL), UNDERGRAD RESEARCHER *.... Spring 2021*
- Devised loadbalancing techniques via FPGA-Based Reconfigurability for DAGGER: networking in Microservices.

Cornell Space Systems Design Studio (SSDS), UNDERGRADUATE RESEARCHER+AUTHOR *.... Fall 2020*
- "*Online Resident Space-Object Shape Modeling through Implicit Scene Understanding*" AIAA SciTech 2021

Cornell Center for Adv. Computing (CAC), ACCELERATED COMPUTING REU SCHOLAR *.....Summer 2020*
- Wrote+Benchmarked containerized GPU-accelerated ML frameworks/solvers for NSF Aristotle Cloud Federation.

Cornell Collective Embodied Intelligence Lab (CEI), UNDERGRADUATE RESEARCHER *.... 2019-2020*
- Constructed an autonomous drone w/ base station; Swarm-deployable for navigation. Guided by Prof J. Skovira.
- Devised ext. circuitry+PCB Design for power, localization camera, RaspberryPi controller. Coded I/O threading.

Intel Inc. High-Performance Computing, SYSTEMS ENGINEER INTERN   *.... Summer 2019*
- Developed full-stack SaaS microservices to federate + allocate HPC server supply-demand across Intel's BUs.

Princeton Plasma Physics Laboratory(PPPL), RESEARCH INTERN SCHOLAR   *.... 2017-2018*
- Designed+built DBD plasma generator. Processed spectral output signal/image to find novel nanosynthesis yield

New Jersey Governor's School of Engineering & Technology, SCHOLAR+AUTHOR   *.... Summer 2017*
- "*Fabrication+Assessment of the Stability,Efficiency+Sustainability of Ag Nanorod Synthesis*",GSET Journal'17.

Liberty Science Center's Partners in Science Program, one of 30 SCHOLARS statewide *.... Summer 2016*
- "*Fabrication of High-Mobility Organic Field Effect Transistors (OFETs) using Nanoscale Graphene Electrodes*"

TEACHING + LEADERSHIP

TA @STANFORD GSB: **OIT 367**- Business Intelligence from Big Data | **OIT 272/275**- Accel. Online Marketplaces
TA @CORNELL: **ECE3140**-Embedded Systems | **ECE3100**-Probability & Inference | **CS2110**-OOP & Data Structs
Stanford Women in Electrical Engineering (WEE), Financial Chair '22-'23
Cornell Society of Women in Engineering (SWE), Internal Affairs Coordinator '18-'20