Jiajun Tang

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Education

- **Princeton University** — Princeton, NJ
  Ph.D. in Electrical and Computer Engineering; CGPA: 3.93/4.00; Advisor: Prof. Kaushik Sengupta — *Aug 2024 - Current*
- **Peking University** — Beijing, China
  B. S. in Applied Physics, Department of EECS; CGPA: 89/100 (WES-calculated: 3.81/4.00) — *Sep 2020 - Jul 2024*
- **University of Michigan** — Ann Arbor, MI
  Visiting Scholar to Michigan Integrated Circuits Laboratory, Advisor: Prof. David Blaauw — *Jun 2023 - Dec 2023*

Selected Research Experience

- **Low Power, Energy Efficient Temperature Sensor** — Peking University
  Research Assistant to: Prof. Xiyuan Tang — *Feb 2024 - Jun 2024*
  - Designed a CMOS temperature sensor in TSMC 28-nm Process
  - Proposed a novel temperature-voltage transducer with high sensitivity and a 12-bit SAR ADC for quantization
- **High Efficiency CMOS Digital Transmitter in Localization System** — University of Michigan
  Research Assistant to: Prof. David Blaauw — *Jun 2023 - Dec 2023*
  - Designed a CMOS Class-D power amplifier in TSMC 180-nm Process, with compact battery and antenna
  - Participated in satellite flyover tests, power amplifier chip measurement
- **High Precision, Low Latency Capacitance-to-Digital Converter (CDC)** — Peking University
  Research Assistant to: Prof. Xiyuan Tang — *Dec 2022 - Nov 2023*
  - Designed a CDC in TSMC 28-nm Process, in cooperation with PhD student Zilong in *PRIME* lab
  - Modeled the $\Delta\Sigma$ loop in MATLAB, designed the FIA amplifier and loop integrator

Selected Publications

- **J. Tang** and X. Tang, "A 12.6-pJ/Conversion Temperature Sensor with 0.98-mV/K Temperature-Voltage Sensitivity," in *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol. 72, no. 3, pp. 449-453, Mar. 2025.
- Z. Wang, B. Li, **J. Tang**, *et al.*, "A 184.8dB FoMs 1.6MS/s Incremental Noise-Shaping Pipeline ADC with Single-Amplification-Based kT/C-Noise-Cancellation Technique," *2025 IEEE International Solid-State Circuits Conference (ISSCC)*, San Francisco, CA, USA, 2025, pp. 1-3.
- Z. Shen, **J. Tang**, *et al.*, "A 181.8dB FoMs Zoom Capacitance-to-Digital Converter with kT/C Noise Cancellation and Dead Band Operation," *2024 IEEE Custom Integrated Circuits Conference (CICC)*, Denver, CO, USA, 2024, pp. 1-2.

Skills Summary

- **Languages**: Mandarin (Native); English
- **Programming**: C++, Python, MATLAB
- **Circuit Design and Simulation**: Cadence Virtuoso, HSpice, Verilog, Chisel, HFSS

Extra-curriculum Outreach

- Teaching Assistant for course "Undergraduate Research Practice for Electronic Information Science" — Feb, 2024
- Vice President for the Students' Association for Science and Technology — Sep, 2022
- Member of department's basketball team at Peking University — Sep, 2020

Honors and Awards

- Merit Student and Third Prize Scholarship at Peking University — Sep, 2023
- Third Award in the Final Competition of Integrated Circuit EDA Elite Challenge in China — Dec, 2022
- Award for Scientific Research Excellents at Peking University — Sep, 2022
- Award for Academic Excellents at Peking University — Sep, 2021