# Theano Stavrinos

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## Education

**Princeton University** — Princeton, NJ
PhD in Computer Science, advised by Dr. Wyatt Lloyd & Dr. Ethan Katz-Bassett (Columbia) — 2017–2023
**Dissertation**: "Nabu: Unlocking Better Cache Performance at Lower Cost with Expiration Time-based Flash Caching".

**University of Southern California** — Los Angeles, CA
PhD in Computer Science, advised by Dr. Wyatt Lloyd & Dr. Ethan Katz-Bassett (Columbia). — 2016–2017
Completed at Princeton University.

**University of California, Los Angeles** — Los Angeles, CA
MS in Computer Science, advised by Dr. Miodrag Potkonjak — 2014–2016
**MS Thesis**: "Evaluating 802.11p in Software-Defined Radio using Realistic Channel Parameters". Supervised by Dr. Miodrag Potkonjak and Dr. Bastian Bloessl (then at U. Paderborn).

**University of Chicago** — Chicago, IL
BA with Honors in Linguistics — 2005–2009
**BA Thesis**: "Predictability and Motivation for the Genitive/Dative Alternation in Modern German Constructions for Attributive Nominal Relations". Supervised by Dr. Steven Clancy.

## Publications

- Lim K, Giordano M, **Stavrinos T**, Kasikci B, Anderson T. "Beehive: A Flexible Network Stack for Direct-Attached Accelerators." To appear in *MICRO* 2024.
- Park J, **Stavrinos T**, Peter S, Anderson T. "EMPower: The Case for a Cloud Power Control Plane." In *HotCarbon* 2024.
- Xie D, **Stavrinos T**, Zhu K, Peter S, Kasikci B, Anderson T. "Can Storage Devices be Power Adaptive?" In *HotStorage* 2024.
- Mwotil A, Anderson T, Kanagwa B, *Stavrinos T*, Bainomugisha E. "LowPaxos: State Machine Replication for Low Resource Settings." In *IEEE Access* 2024.
- **Stavrinos T**. "Nabu: Unlocking Better Cache Performance at Lower Cost With Expiration Time-Based Flash Caching." PhD Thesis 2023.
- Hodsdon C, **Stavrinos T**, Katz-Bassett E, Lloyd W. "MASON: Scalable, Contiguous Sequencing for Building Consistent Services." In *Journal of Systems Research (JSys)* 2023.
- **Stavrinos T**, Berger D, Katz-Bassett E, Lloyd W. "Don't Be a Blockhead: Zoned Namespaces Make Work on Conventional SSDs Obsolete." In *HotOS* 2021.
- Pan S, **Stavrinos T**, Zhang Y, Sikaria A, Zakharov P, Sharma A, Shankar P S, Shuey M, Wareing R, Gangapuram M, Cao G, Preseau C, Singh P, Patiejunas K, Tipton JR, Katz-Bassett E, Lloyd W. "Facebook's Tectonic Filesystem: Efficiency from Exascale." In *FAST* 2021.
- Guo J, Xu T, **Stavrinos T**, Potkonjak M. "Enabling Environmentally-Powered Indoor Sensor Networks with Dynamic Routing and Operation." In *PATMOS* 2016.
- Pannetier N, **Stavrinos T**, Ng P, Herbst M, Zaitsev M, Young K, Matson G, Schuff N. "Quantitative Framework for Prospective Motion Correction Evaluation." In *Magnetic Resonance in Medicine* 2016.

## Academic & Departmental Service

- **USENIX ATC 2024 Reviewer** 2024
- **NSDI 2024 Reviewer and Scribe** 2024
- **OSDI 2023 External Reviewer** 2023
- **Princeton CS Department Climate & Inclusion Committee PhD student representative** 2020–2022
- **Internet Measurement Conference (IMC) 2022 External Reviewer** 2022
- **OSDI 2021 External Reviewer** 2021
- **OSDI 2018 Topic Preview Sessions Organizer** 2018
- **OSDI 2018 External Reviewer** 2018
- **NSDI 2018 External Reviewer** 2018
- **Internet Measurement Conference (IMC) 2017 Shadow PC Member** 2017
- **SIGCOMM 2017 Topic Preview Sessions Co-Organizer** 2017
- **NSDI 2017 External Reviewer** 2017

## Scholarships and Awards

- **Chris Edmondson-Yurkanan Travel Grant** 2018
  Grant awarded for service to SIG to support travel to SIGCOMM
- **Open Science Data Cloud PIRE Fellow** 2015
  NSF-sponsored fellowship awarded to fund research internship at the University of Amsterdam
- **Graduate Opportunity Fellowship Recipient** 2014–2015
  Fellowship awarded to cover full tuition and living expenses for first year of Master's degree
- **Benjamin A. Gilman International Scholarship** 2007
  Scholarship awarded to fund Civilization Studies Semester Abroad in Athens, Greece

## Work Experience

**University of Washington** Seattle, WA
Postdoctoral Researcher, Paul G. Allen School of Computer Science and Engineering Summer 2023–present

- Researches power- and carbon-aware systems within the Future of Cloud Infrastructure (FOCI) project.
- Advises graduate and undergraduate students on projects.

**Microsoft Research** Cambridge, UK
Research Intern, Holographic Storage Team Fall 2022

- Built simulator to evaluate performance and endurance impact of caching on flash-based SSDs (C++, Python)
- Evaluated feasibility of caching IO-heavy workloads on flash

**Facebook** Menlo Park, CA
Software Engineering Intern, Storage Team Winter 2020

- Explored performance versus cost tradeoffs for flash-based SSDs in Facebook's distributed filesystem (C++)
- Collaborated with storage team to publish experience paper about Facebook's storage infrastructure

**Google** San Francisco, CA
Software Engineering Intern, Traffic Team Summer 2016

- Integrated regression detection service into binary rollout framework to automate evaluation of updates (Python)
- Applied integrated framework to automate rollouts for API management service (Python, C)

**3Scan, Inc.** San Francisco, CA
Software Development Intern Summer 2015

- Implemented Firmata protocol for sensor-to-microscope communication (Python, C)
- Built interactive shell for testing sensor system (Python)

**3Scan, Inc.** San Francisco, CA
Software Development Intern Summer 2014

- Integrated microscope sensors and focus mechanism into Arduino microcontroller (C, C++)
- Built browser dashboard for monitoring system status (JavaScript, HTML, MongoDB, d3)

**Center for Imaging of Neurodegenerative Diseases** San Francisco, CA
Research Associate June 2012–May 2014

- Carried out texture analysis experiments to quantify MRI motion artifacts (Python)
- Implemented fMRI network analysis pipeline with NetworkX (Python) and Circos visualization software

## Teaching

- **Teaching Assistant** at Princeton University Spring 2019
  *Introduction to Computer Science (COS 126)*
- **Teaching Assistant** at Princeton University Fall 2018
  *Advanced Distributed Systems (COS 418)*
- **Teaching Assistant** at University of California, Los Angeles Winter & Spring 2016
  *Introduction to Operating Systems (CS 111)*

## Languages & Frameworks

- **Computer Languages:** C, C++, Python
- **Software:** SPDK, DPDK, QEMU
- **Natural Languages:** advanced German, conversational Spanish, beginner Greek