JOHN PEARSON, Ph.D.

github.com/johnpphd | linkedin.com/in/johnpphd

OVERVIEW

Senior software engineer focused on agentic AI systems and fast, reliable delivery • Built a Claude Code agent swarm (100+ specialized subagents) that coordinates work in parallel and routinely compresses multi-week efforts into a single day • Built AI-powered internal tools for non-technical teammates: a protocol risk analyzer and person risk analyzer accessible via Slack, and a Kanban board backed by an MCP server that lets non-engineers file issues directly into the agent swarm • Open-source core swarm: github.com/johnpphd/Web3-Claude (production swarm extends this foundation)

EXPERIENCE

Senior Software Engineer   Feb 2022 – Present
Nexus Labs   Remote

Built and maintained the React frontend for Maverick Protocol v1/v2 • Designed and implemented Next.js APIs, sourcing protocol and on-chain data via The Graph • Built a Claude Code–driven agent swarm (100+ coordinated subagents) to accelerate engineering throughput and improve consistency • Web3 stack: Ethers.js, wagmi/viem; wallet integrations via ReOwn AppKit, RainbowKit, and BlockNative Web3Onboard • Built backend indexing pipelines using a Ponder indexer

Head Masters Women's Coach   Sep 2012 – Present
Atlanta Rowing Club   Atlanta, GA

Coach a team of 20–25 adult women • #1 club nationally (2025) • 15+ National Championships (2021–present)

Science Dept. Chair & Upper School CS, Math, &   Aug 2008 – June 2023
Physics Teacher
Pace Academy   Atlanta, GA

Managed a department of 10 • Taught AP and Honors classes at every grade level • Built a multi-year statistical analysis in R of ~3M data points across 100K+ student records, with interactive Shiny dashboards, presented to administration to improve equity and decision-making • Redesigned curriculum for Introductory

Physics & AP Physics (incl. data-modeling labs & 3-D design) • Created curriculum for multiple independent study math courses and an introductory JavaScript programming course • Coached robotics

Website Lead
Anidata

Feb 2017 – June 2018
Atlanta, GA

Built and managed website for a data science collective • Contributed to volunteer projects for social good

Head Coach & Varsity Men's Coach
Atlanta Junior Rowing Association

Jan 2006 – June 2011
Atlanta, GA

Coordinated a coaching staff of 15, equipment, and logistics for a nationally competitive team of 100+ rowers • Liaison between coaches, parents, and board of directors • Built the website

VIGRE Graduate Student
Georgia Institute of Technology

Aug 2002 – July 2008
Atlanta, GA

Lead instructor and teaching assistant for calculus courses

EDUCATION

Ph.D. in Mathematics, Minor in Physics
Georgia Institute of Technology

July 2008
Atlanta, GA

Thesis: The Noncommutative Geometry of Ultrametric Cantor Sets

B.A. in Mathematics
Dartmouth College

May 2002
Hanover, NH

HONORS & AWARDS

Knight Capital Investment in Education Award
Knight Capital Club

May 2017

A one-year award to be used for further training to enhance the educational experience of Pace students.

STAR Teacher
Professional Association of Georgia Educators Foundation

Jan 2013, Jan 2017

Awarded by the school's STAR student to a single faculty member who most inspired them.

Jesse C. Crawford Jr. Endowment for Excellence in Teaching Award

May 2016

Jesse C. Crawford Jr. Endowment

A three-year fellowship awarded to a faculty member for excellence in teaching and contribution to the field of teaching.

Loridans Academic Fellowship
May 2014

The Charles Loridans Foundation

A five-year fellowship awarded to a faculty member at a local area independent school for distinguished classroom instruction.

Cum Laude Society Fellowship Award for Outstanding Teaching
May 2012

Pace Academy

A three-year fellowship awarded to a faculty member by the Cum Laude Society for excellence in teaching.

Best Ph.D. Thesis Award
Sep 2009

Georgia Institute of Technology

A prize awarded by the Math Department to recognize the best Ph.D. thesis written during the previous year.

PUBLICATIONS

J. Pearson. *"Viète's Formula, Knar's Formula, and the Geometry of the Gamma Function."* **American Mathematical Monthly**, 8 (2018), pp. 704-714.

J. Pearson, J. Bellissard. *"Noncommutative Riemannian Geometry and Diffusion on Ultrametric Cantor Sets."* **Journal of Noncommutative Geometry**, 3 (2009), pp. 447-480.

J. Pearson. *"The Noncommutative Geometry of Ultrametric Cantor Sets."* Ph.D. Thesis, Georgia Tech (2008).

LANGUAGES & TECHNOLOGIES

AI: Claude Code | Claude Skills | Agent swarms | Subagents | Beads

Frontend: React | JavaScript | Next.js | HTML | CSS | React Query

Web3: Wagmi | Viem | Ethers.js | Ponder

Tools: Datadog | Excel | Google Sheets

Familiarity: French | Fusion 360 | Ruby on Rails | R