

# Mike P. Wittie

## Distributed Systems Architect & Technical Lead

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I work at the intersection of systems research and engineering, designing and deploying distributed systems from first principles through production by reducing complex problems into simple, composable, measurable primitives. As a former founder, CEO, Chief Scientist, and tenured professor, I focus on identifying the key constraint in a complex system, targeting it directly, and measuring the resulting performance in deployment. I operate as a deep technical individual contributor or hands-on technical lead, building systems using expertise in confidential computing, blockchain systems, and latency-sensitive environments, and distilling trade-offs into actionable decisions that enable deployment and adoption.

## Employment

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- Chief Executive Officer, Blocky, Inc. *2025 – 2026*
  - Designed and executed product strategy for a verifiable serverless compute platform (WASM on confidential computing), enabling secure off-chain execution with reduced trusted computing base and startup latency vs. Chainlink Functions.
  - Matured product from PoC to production in 6 months, leading productization across CLI, developer portal, documentation, and billing systems.
  - Designed and ran data-driven GTM experiments (LinkedIn, X), improving outbound performance by 341% and establishing initial positioning.
  - Acquired paid design partners and enabled production time-weighted average price (TWAP) oracle deployments (Casper's [Styks](#)) validating real-world platform usage.
  - Raised \$500K+ in convertible financing to extend runway and deploy a paid beta in production.
- Chief Scientist, Blocky, Inc. *2018 – 2025*
  - Led the development of successful NSF SBIR Phase I & II grants to secure \$1.25M in non-dilutive R&D funding.
  - Adapted authentication services (Auth0, Cognito) to create existence proofs and combined them with Trusted Execution Environment (TEE) attestations (AWS Nitro Enclaves, GCP Confidential Spaces) and a novel datastructure to guarantee agreement without relying on costly consensus mechanisms.
  - Architected and contributed to the implementation of [ZipperChain](#) to reduce transaction ordering cost by four orders of magnitude.
  - [Patented](#) ZipperChain in U.S., E.U., and other international jurisdictions.
  - Contributed to implementation of ZipperChain algorithms and infrastructure, achieving 18K TPS to make it one of the fastest blockchain systems at the time.
  - Developed core technical architecture and prototypes underpinning \$2M seed raise at \$20M post-valuation.
- Assistant and Associate Professor, Montana State University *2011 – 2022*
  - Led the Networks and Systems Lab, mentoring students and collaborators across multiple projects from ideation through implementation, publication, and grant development.
  - Designed and evaluated distributed systems to solve problems in content delivery, delay-sensitive communication, blockchain oracles, edge computing, and human-computer interaction (HCI) with a focus on rigorous measurement and data-driven optimization.

- Translated research into production infrastructure deployed with industry partners including Akamai and [Beartooth](#).
- Published over [50](#) academic articles with cited over [1,200](#) times.
- Secured \$6.7M in competitive NSF and federal research funding, with over \$1.6M directly supporting my lab’s personnel and research initiatives.
- Consultant, Beartooth Inc., Bozeman, MT *2017 – 2021*
  - Designed and implemented a real-time mesh MAC protocol for LoRa radios.
  - Advised on supporting real-time voice transmission protocol implementation.
- Research Assistant, UC Santa Barbara *2006 – 2011*
  - Conducted research in network measurement and protocol design across WiFi, cellular, opportunistic, satellite, and social networks, collaborating with academic and industry partners.
- Earlier Industry Experience *2004 – 2008*
  - Held research and engineering roles at Bell Labs, Lockheed Martin, and Rockwell Collins, working on network protocol design and data-link interoperability.

## Skills

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- Distributed Systems & Infrastructure:  
Distributed systems architecture, consensus and replication, storage systems, networking (incl. wireless), cloud and edge platforms, fault-tolerant and latency-sensitive systems
- Trust, Security & Verification:  
Confidential computing and secure enclaves, applied cryptography, blockchain systems, cryptographic proofs and authenticated data structures, remote attestation
- Performance & Systems Engineering:  
Performance measurement, system optimization, experimental design and evaluation
- Production Systems & Developer Platforms:  
Design and productization of distributed systems, APIs and developer platforms, CLI tooling, CI/CD pipelines
- Programming & Systems:  
Go (production systems), Python, C/C++; Linux; AWS, GCP
- Languages:  
English (native), Polish (native), Spanish (conversational), French (basic)

## Education

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- Ph.D., Computer Science, University of California at Santa Barbara *2011*
- M.S., Computer Science, University of Pennsylvania *2004*
- B.A., Cognitive Science, University of Pennsylvania *2003*

## Interests

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- Brazilian jiu jitsu (purple belt), Argentine tango (B.A. three times), and motorcycles (rebuilt a 2006 Sportster).