Arin Bhandari

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EDUCATION

Carnegie Mellon University Aug. 2023 – May 2027

B.S. in Computer Science, Concentration in Computer Systems *Pittsburgh, PA*
- Grade Point Average: 4.0/4.0, Dean's List with High Honors
- Courses: Compiler Design, Distributed Systems, Computer Networks, Machine Learning, Algorithm Design and Analysis
- Activities: Science Olympiad President, Carnegie Mellon Racing, Quant Club

EXPERIENCE

Databricks May 2026 - Present

Incoming Software Engineer Intern *Mountain View, CA*
- Will be working at Databricks Summer 2026

Carnegie Mellon School of Computer Science Jan. 2024 - Present

Teaching Assistant *Pittsburgh, PA*
- Led grading sessions and collaborated with over 40 other teaching assistants to host weekly lab sessions and office hours for introductory data structures, algorithms, and system design class, taken by 500+ students a semester
- Developed a mark-and-sweep garbage collector assignment and Autolab grading infrastructure for C0, a memory-safe subset of C, supporting reliable memory management for student-written programs and automating testing and feedback

Amazon May 2025 - Aug. 2025

Software Developer Engineer Intern *New York, NY*
- Built LLM-driven feature extraction systems to identify rare, high-impact product attributes from 10B+ titles, improving Amazon search relevance
- Engineered automated AWS pipelines to process and extract data from 100B+ SKUs, improving scalability and reliability of large-scale data workflows

Palantir Mar. 2025 - Mar. 2025

Palantir Launch Intern *Washington D.C.*
- Chosen as 1 of 40 students nationwide for Palantir's highly-selective Launch program, focusing on Palantir's real-world applications of data engineering and AI
- Developed a customizable travel-planning application on Palantir Foundry and AI Platform, generating optimized itineraries for 100+ global cities

AutoNation Jun. 2024 - Aug. 2024

AI Developer Intern *White Plains, NY*
- Engineered advanced search functionality using AWS Bedrock and OpenSearch, enabling vector embeddings and natural language queries and to navigate a 300K+ car inventory and reducing response time by 25% for better user experience
- Designed chatbot architecture for customer search tool and partnered with senior engineers to integrate system, leading to 30% increase in customer engagement

PROJECTS

C0 Compiler
- Building a compiler for C0, a safe subset of the C language, using OCaml to target x86 assembly

Distributed Bitcoin Miner
- Implemented a reliable, in-order messaging protocol over UDP using sliding windows, acknowledgments, checksums, and exponential backoff to tolerate packet loss and reordering
- Built a distributed Bitcoin mining system on top of the protocol, coordinating parallel workers and detecting node failures via heartbeats and epoch-based timeouts

Raft Consensus Algorithm
- Implemented the Raft consensus protocol in Go, including leader election, heartbeats, log replication, and commit indexing for a replicated state machine
- Designed concurrency-safe RPC handlers and background goroutines to ensure correctness under message loss, reordering, and node failures

Mixnet (Privacy-Preserving Overlay Network)
- Built a privacy-preserving overlay network combining encryption, randomized routing, and batching-based mixing to resist traffic analysis
- Evaluated system behavior across multiple network topologies using STP convergence time, routing message volume, and end-to-end RTTs on distributed testbeds

TECHNICAL SKILLS

Languages: Java, Python, Go, C, C++, SQL, TypeScript, Assembly x86
Libraries: Pandas, NumPy, OpenCV, PyTorch, TensorFlow
Developer Tools: REST API, AWS, Git, Docker