Jayden G. McKenna

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EDUCATION

University of Texas at Austin — **December 2027**
Master of Science in Computer Science — **GPA:** 3.89/4.0
Coursework: Distributed Systems, Parallel Systems

University of Florida — **December 2024**
Bachelor of Science in Computer Science (*cum laude*) — **GPA:** 3.75/4.0

EXPERIENCE

Student Engineering Intern II — **June 2023 – August 2023**
Honeywell Federal MFG & Tech, LLC, Albuquerque, New Mexico

- Developed internal testing software to store and retrieve circuit part numbers, implementing a custom hash-based lookup mechanism to ensure efficient and consistent access to test data.
- Applied structured data modeling and validation practices to analyze circuit performance metrics across test runs.
- Designed and validated integrated circuit schematics in Altium and delivered a final PCB, documenting design decisions and testing outcomes in a technical report.

Undergraduate Research Assistant — **January 2023 – May 2023**
Ebrahimi Lab, University of Florida, Gainesville, Florida

- Designed and simulated CS and CG RF amplifier topologies in Cadence, analyzing gain, bandwidth, and stability tradeoffs across multiple MOSFET configurations.

PROJECTS

Canvas-Lite *(FastAPI, PostgreSQL, SQLAlchemy, Alembic, Docker, JWT)* — **February 2026**

- Designed and implemented a Canvas-like learning management backend with role-based authentication (students, instructors, TAs) using FastAPI and JWT, enforcing access control via dependency injection.
- Built a normalized PostgreSQL schema for users, courses, enrollments, and permissions, implementing migrations with Alembic and ensuring referential integrity, cascading deletes, and duplicate-safe enrollment workflows.
- Implemented role-based authorization and dependency-injected access control to enforce instructor- and student-specific permissions across endpoints.
- Containerized the application with Docker Compose and validated API behavior through OpenAPI (Swagger) testing and seeded end-to-end scenarios.

Subleaser – Project Manager *(React, Firebase, Redux, Node.js, MongoDB)* — **August 2024 – December 2024**

- Organized the development of a full-stack web platform aimed at streamlining apartment subleasing, leading code review, meetings, and design sprints. Coordinated GitHub version control, implementing branching and merging strategies.
- Managed a team of developers, ensuring proper implementation of Firebase for real-time database and user authentication.
- Designed and led development of key features, including search filters for subleases, a real-time messaging system, and dynamic user profiles for renters and sublandlords.

Distributed Raft-Based Key-Value Store *(Python, Raft Protocol, gRPC)* — **August 2025 – December 2025**

- Implemented a multi-node distributed key-value store using Raft, including leader election, log replication, and fault-tolerant state machine application.
- Designed leader-aware request routing, inter-node gRPC communication, and majority-based commit logic.
- Ensured safety and liveness through term management, randomized election timeouts, and conflict-resolving AppendEntries handling.

SKILLS

Python, Java, SQL, JavaScript, FastAPI, Flask, Django, Node.js, REST APIs, JWT, OpenAPI (Swagger), gRPC, PostgreSQL, MongoDB, MySQL, SQLAlchemy, database schema design, migrations (Alembic), data modeling, Docker, Docker Compose, Git, AWS (EC2, S3), authentication and authorization, API design, input validation, Pytest, Postman