Jackson Justus

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Education

Boston University, College of Engineering | Boston, MA 3.7 GPA Expected May 2028

Bachelor of Science in Computer Engineering, Minor in Theatre Arts, Upsilon Pi Epsilon

Relevant Coursework: Software Engineering, Databases, Computer Organization, Electric Circuits, Differential Equations

Relevant Experience

Software Engineering Intern, Digits May 2026 – Aug 2026

- Implemented a company top-10 priority (Closed Periods v2) end-to-end on the Ledger team, owning architectural planning, backend services, and frontend integration alongside 2 interns and 6 full-time engineers.
- Extended Kotlin/Java view-generation pipelines with new schema tables to freeze transaction attributes in closed accounting periods, shipped to 13.3K+ organizations and 7.4K+ active users to block imported and ML-classified edits.
- Designed and built a closed-period review-queue system using Go microservices, GraphQL/Protobuf endpoints, and Google Spanner on Kubernetes, fulfilling a contractual requirement for a top-20 accounting firm's deal with Digits.
- Shipped 90+ peer-reviewed PRs across three codebases (Kotlin, Go, React/Apollo) with 90% test coverage targets via CircleCI; monitored production deploys with Google Cloud Console logging, error reporting, and Dataflow metrics.

Software Engineering Teaching Assistant, Boston University Aug 2025 – Dec 2025

- Collaborated with 5 other TAs to create C/C++ labs for 100+ students, teaching software practices including object-oriented design, testing, design patterns, and collaborative Git workflows.
- Developed C/C++ homework assignments and implemented CI/CD tests with GoogleTest, integrating them into a GitHub-based autograder pipeline; received faculty commendation for initiative in curriculum development.

President & Electrical Lead, Terrier Ride Engineering Club, Boston University Sep 2024 – Present

- Led a 20-person team across mechanical, electrical, and design subteams to build a functional model theme park ride, placing 5th of 23 as a first-year team at the Ride Engineering Competition
- Deployed a Python pipeline which validated an ASTM F3598 compliant risk assessment and renders it to a formatted PDF; deployed as a Slack bot for teamates to use & publish on demand.
- Designed and implemented a Raspberry Pi ride control system with a state machine and event-driven architecture, integrating a UART PID motor controller for precise motion control and embedded safety logic.
- Designed the ride's electrical system in KiCad, including a redundant hard-wired E-Stop, with schematics for power distribution, wiring, and controller interfaces used in design reviews and troubleshooting

Software Deputy, Terrier Motorsport (Formula Hybrid-Electric), Boston University Sep 2024 – Present

- Developed a robust software package in Python to manage the backend of a Linux-based Dash Display System, integrating SPI, I2C, and CAN devices using SMBus2 & CANTools into a unified system for seamless data transfer.
- Optimized data collection speed by 100x using multithreaded, non-blocking I/O, enabling real time performance monitoring while simultaneously recording telemetry for long term issue diagnosis.
- Created error-handling protocols to sustain system uptime, ensuring constant operation under abnormal conditions.

SHINE Research Intern, University of Southern California Jun 2023 – Jul 2023

- Engineered an analog circuit to solve linear programming problems 7,000x faster than conventional digital methods.
- Researched experimental analog circuitry applied to drone systems to enable rapid, real-time updates for object avoidance algorithms surpassing the capabilities of digital systems, and enhancing drone safety.
- Explored applications of analog circuitry in high-performance environments with PhD mentors.

Skills

Computer: C/C++, Kotlin/Java, Python, React, SQL/PostgreSQL, Git/GitHub, CI/CD, Networks, Unix/Linux, Verilog

Hardware: Raspberry Pi/Arduino/STM32, I2C/SPI/UART/CAN, PCB Design (KiCad), Embedded Systems, Soldering