Cooper Robillard

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Portfolio: cooperrobillard.com

EDUCATION

Boston College, Morrissey College of Arts and Sciences — Chestnut Hill, MA
Bachelor of Science Candidate, Human-Centered Engineering | GPA: 3.843 | Advanced Standing — Expected May 2028

PROFESSIONAL EXPERIENCE

Training Technology Digital Solutions Intern, Bosch — Watertown, MA — Oct 2026–Present

- Researched training-content inventories and learner pathways, identifying source gaps and opportunities to reuse existing materials.
- Reviewed trainer-scheduling and product-data workflows; coordinated research findings and directed AI-assisted presentation drafts for review.

Systems Engineering Intern, MITRE — Bedford, MA — May–Aug 2026

- Supported integration and validation of selected software components by replaying recorded radar data through local environments and helping migrate services to Docker Compose; reached a six-service container checkpoint.
- Co-developed an isolated CALDERA test lab with four application-specific abilities; demonstrated five-second GeoServer interruption and recovery, verifying restoration of 826,907 selected records with unchanged underlying Postgres state.
- Created reusable setup guides, troubleshooting procedures and runbooks covering dependencies, infrastructure blockers, scope limitations and rebuild steps; presented results for technical handoff.

SELECTED CREATIVE WORK

PRIMETIME | Independent, Unofficial Promotional Concept — Aug–Sep 2026

- Directed and edited a 40-second unofficial promotional concept using third-party source footage, an original piano cue, layered sound design, and an After Effects/Blender CRT-to-montage sequence.
- Built the 3D room foundation, handled scene composition and lighting, and integrated a 382-frame Blender/Cycles render; supervised AI-assisted packaging and QA.

Sinners | Unofficial Awards-Style Trailer Concept — 2026

- Conceived and edited a 90-second concept trailer, restructuring existing film footage into escalating action and reflective resolution; created graphics and integrated Blender-rendered elements with After Effects compositing.

(500) Days of Summer | Unofficial Editorial Portfolio Edit — 2025–2026

- Structured a 77-second film edit around a sustained opening scene and faster relationship/conflict montage, preserving dramatic context, emotional progression and a resolved ending.

SELECTED ENGINEERING & TECHNICAL PROJECTS

Job Fit & Skill-Gap Analyzer | AI-Assisted Web Application — May–Aug 2026

- Defined requirements and directed AI-assisted development of a deployed limited-beta app comparing résumés with job descriptions to identify skill matches and gaps.
- Led cross-stack integration, testing, and reliability work across Next.js/TypeScript, FastAPI, Clerk, and Supabase/Postgres, including deterministic fallback and privacy controls.

Over-the-Air Acoustic Modem | Academic DSP Project — Dec 2025

- Built and tested a MATLAB text-transmission system using laptop speakers/microphones, modulation, FIR filtering, and synchronization; measured 0% BER in controlled trials and under 3% payload BER in final-demo conditions.

Counter-Flow Heat Exchanger CFD Analysis | Independent Academic Project — Apr 2026

- Completed ε-NTU calculations and ANSYS Fluent CFD of a counter-flow heat exchanger at two inlet velocities, comparing theoretical and simulated results to identify heat-transfer design improvements.

Communication Switch Stand | Human-Centered Engineering Project — Sep–Nov 2024

- Translated classroom stakeholder needs into design requirements; developed and tested an adjustable communication-switch stand, evaluating usability, stability, and setup safety.

TECHNICAL & CREATIVE SKILLS

Creative & Post: Adobe After Effects; Blender/Cycles; Adobe Photoshop; GarageBand; video editing; compositing; motion graphics; sound design.
Software & AI: Python; MATLAB; JavaScript/TypeScript; Next.js; FastAPI; Git/GitHub; AI-assisted development.
Systems & Data: Docker/Compose; PostgreSQL/Supabase; REST/JSON; systems integration; debugging; validation.
Engineering & Workflow: ANSYS Fluent; CFD/heat transfer; physical prototyping; human-centered design; technical documentation; media delivery.