Dartagnan Birnie

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EDUCATION

University of New Hampshire **May 2026**
B.S. in Computer Science - Dean's List for Fall 2024, Spring 2025 *Durham, NH*
Relevant Courses: Intro to Software Engineering, Data Structures & Algorithms, Intermediate Web Design, Systems Programming

TECHNICAL SKILLS

Languages: C, Java, **JavaScript**, TypeScript, **HTML/CSS,** Python, PHP
Technologies: React.js, Node.js, Git, MongoDB, REST APIs, Leaflet.js, Vite, jQuery
Tools: Figma, Photoshop, Microsoft 365, GIMP, Wix
Systems: Linux, Windows

EXPERIENCE

Freelance Web Developer **Present**
Owner *Remote*
- Built and managed websites for 3+ small businesses with custom branding & responsive layouts.
- Handled all client communication, design proposals, and training documentation.

Die Or Die (Indie Game) **Jan. 2024 - Present**
Lead Game Designer *Durham, NH*
- Developed turn-based gameplay, modular UI, and shader animations using Godot (GDScript).
- Managed game design vision and showcased work at UNH CS Poster Symposium.

PiRail (Senior Capstone) **Aug. 2024 - May 2025**
Software Engineer *Durham, NH*
- Led UI overhaul of legacy HTML interface into a modern React.js, mobile-first web app.
- Integrated live mapping & GPS-based POI tracking using Leaflet.js.
- Created light/dark modes, maintained Git documentation, and presented at URC.
- Collaborated with team members and sponsors to refine UI requirements and ensure deliverables aligned with project goals.

Account Tree **May 2024 - Aug. 2024**
Software Development & Marketing Intern *Dover, NH*
- Developed software features by writing BRDs and debugging PHP/JavaScript issues.
- Rebranded the company with a redesigned website and updated marketing assets.
- Initiated email campaigns and conducted client sales meetings using Agile methodology.

PROJECTS

VMX20 Toolchain | C **Fall 2024**
- Designed a full toolchain in C for the VMX20 architecture, including a custom assembler (asx20), disassembler (dsx20), and virtual machine (vmx20).
- Engineered ELF-style object file parsing, instruction decoding, and multithreaded execution with synchronized memory access.
- Presented at the Fall 2024 UNH CS Poster Symposium.

FUN-H | Python, Flask, MongoDB, JavaScript **Spring 2023**
- Built a responsive web app for students to browse daily menus, build USDA-compliant "Wildcat Plates," and manage meal records.
- Implemented user authentication, AJAX-powered forms, and mobile-first UI using Flask, Jinja2 templates, and MongoDB.
- Developed modular frontend with jQuery and reusable HTML templates, enabling dynamic and intuitive meal planning.