Christopher Pyle

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Education

BS in Computer Science, Software concentration, Math minor — GPA: 3.97 Graduation: May 2027
Northeastern University *Boston, MA*

- **Relevant Coursework**: Object Oriented Design, Algorithms and Data, Computer Systems, Programming Languages, Intro to Databases, Accelerated Fundamentals of Computer Science 1 & 2, Linear Algebra
- **Extracurriculars**: Northeastern Electric Racing (Head of Web Dev), Northeastern Alpine Ski Team (Treasurer), Game Theory Association (Secretary), Teaching Assistant (Fundamentals of Computer Science 1 & 2), Outdoors Club

Technical Skills

Languages: JavaScript, Typescript, Python, Java, Rust, C, SQL, Terraform, HTML, CSS, Racket
Frameworks & Libraries: React, Node, Express, Prisma, FastAPI, SQLAlchemy, Django, FreeRTOS, Svelte
Cloud Technologies: Docker, Git, Github Actions, AWS (EB, ECS, EC2, S3, RDS, Amplify), Netlify, Vercel

Experience

Software Engineer July 2025—Present
Via Separations (NExT Consulting) *Boston, MA*

- Designed and implemented a production Warehouse Management System for **250+** users using **Python** / **React**, to track and manage biotech inventory across multiple facilities, improving accuracy from **50%** to **95%** for **10k+** items
- Architected PostgreSQL schema with temporal row versioning and genealogy tracking for complete traceability across **100k+** rows. Utlized SQL Triggers, computed columns, and optimized queries to achieve **2x** faster performance
- Implemented Entity-Attribute-Value (EAV) model to flexibly store **1000+** custom attributes for biotech products
- Integrated with **Quickbase API** to automatically fullfill purchase orders, increasing inventory intake speed by **40%**

Head of Web Development January 2024—Present
Northeastern Electric Racing *Boston, MA*

- Manage all development and technical operations on an Enterprise Resource Planning (ERP) system serving **400+** club members, overseeing deployments on **AWS**, codebase architecture, and feature roadmap execution
- Lead **9** tech leads and **60+** developers to implement multiple concurrent features each semester. Run weekly meetings, perform code reviews, provide technical help, and teach web dev onboarding class for **30+** novice developers
- Designed and implemented full AWS infrastructure with **Terraform**, automated deployments, reduced costs by **30%**
- Implemented a file review system where users can upload, view, markup, and approve drawings for CAD parts
- Refactored and optimized **100+** endpoints and added indexing on database causing up to **5x** faster page load times

Software Engineer August 2022—Present
Unicode *Virtual*

- Developed backend for the Adopt A Character site in **Svelte**, involving schema design, payment processing, and integration with internal and external databases. Generated **$40,000** revenue in the first **2.5 months** of deployment
- Implemented backend flow with **PouchDB** / **Typescript** to check availability, process payments, and add adoptions
- Created Admin page to streamline adoption approval and automate social media posts & sending thank you emails
- Integrated with stripe payment and external accounting tool **API** & **Webhooks** to maintain data consistency
- Facilitated conversion of CLDR site with **130+** pages into a static site, automated conversion with Python

Projects

Mentor Matcher | *React, Django* August 2025

- Full stack staff mentorship matching application in **React** and **Django** with a customizable form and algorithm
- Utilized custom 3-stage matching algorithm to compare matches and compute optimal match pairings for whole cohort

Bit board Chess Engine | *C, GO, Web Sockets* June 2025

- Created bit board chess engine in **C** with alpha beta pruning, iterative deepening, and search extensions
- Deployed engine in full-stack web app using **React**, **Web Sockets**, and **Golang** to interface with the engine

Alpine Skiing Image Processor | *Python, Yolov8, PyQt5* January 2025

- Trained **computer vision model** on custom dataset to automatically recognize bib numbers of ski racers in photos
- Developed user interface for bulk processing **400+** photos / week, generating **$600+** in sales revenue

Additional Information

Interests: Skiing | Ski Racing | Mountain Biking | Rock Climbing | Hiking | Car Racing | Cats | Weightlifting | Cooking
Accolades: Deans List all semesters | Red Cross CPR & First Aid | Bill Taylor Essay Contest Winner | Cum Laude