CYRUS FRESHMAN · BOSTON, MA · CYRUS@(FRESHMAN.DEV)

FRESHMAN.DEV LLC · OWNER · BOSTON, MA
Software Developer — 2022–2023
- Miscelleaneous software projects

AMAZON ROBOTICS · PATH PLANNING TEAM · WESTBOROUGH, MA
Software Development Engineer — SEPTEMBER 2019–APRIL 2022
- Developed unstructured path planning API for autonomous warehouse vehicles (demo)
- Implemented real-time event stream processor for vehicle allocation
- Optimized tier-1 data pipeline service ecosystem to improve scaling of accessor API by 1500%
- Designed internal alarming library used across adjacent teams
- Simplified management of throttling system and collaborated on self-service workflow for clients
- Presented technical design decisions
- Undertook occasional UI design work
- Mentored intern project and positively influenced programming methodology of colleagues

MATHWORKS · DATA TOOLS & GRAPHICS TEAMS · NATICK, MA
Software Engineering Intern — SUMMERS 2016–2018
- Developed full-stack feature for MATLAB Online's Import Tool
- Implemented several heavy UI elements for MATLAB's Property Inspector, including colormap (detail)
- Created graphics performance reporting app for progress tracking

UNIVERSITY OF MASSACHUSETTS, AMHERST · AMHERST, MA — 4.0\ 3.91
Bachelor of Science in Computer Science — SEPTEMBER 2015–MAY 2019
- 589 Machine Learning — 514 Data Science — 583 Game Programming — 383 Artificial Intelligence
- 403 Robotics — 326 Web Programming — 611 Advanced Algorithms — MATH MVCalc LinAlg DiffEq

UNIVERSITY OF AUCKLAND · AUCKLAND, NEW ZEALAND — 8.0\ 8.25
Semester Abroad — SPRING 2018
- 373 Computer Graphics — 351 Database Systems — 345 Human-Computer Interaction

OTHER PROJECTS & ROLES
MERN-based Web Applications — 2021–2023
- (wordbase.app) remake of discontinued multiplayer word game
- (wordle.freshman.dev) leaderboard for programmatic Wordle solvers
- (dinder.social) make new recipes with random people on the internet
- (pico.cafe) resources for getting started with the Raspberry Pi Pico
- (follow-sync.freshman.dev) sync follows between Twitter and Mastodon
- (basin.fish) fishbowl, a party game similar to charades

Hierarchical Control System for Simulated Pong-Playing Robot — 2019
- Composed behavior from low-level PD controllers to integrated gameplay for course competition

3D Game Development in Unity — 2019
- Designed physics-based couch game with Nintendo Joy-Cons for player input (link)

Hackathon Competition — 2018
- Won 'Most Innovative' for idea with random group while studying at University of Auckland

Team Lead, Competitive Programming Interest Group — 2017
- Achieved 7th place in the ICPC 2017 Northeast North America Regional Contest (scoreboard)
- Qualified at BOSPRE Preliminary as first-time ICPC competitor (scoreboard)

Secretary, Association for Computing Machinery (ACM) Student Chapter — 2017

PROGRAMMING LANGUAGES, FRAMEWORKS, TECHNOLOGIES & METHODOLOGIES
- Java, JavaScript/TypeScript, Python, C/C++, C#, Kotlin, Ruby, MATLAB, HTML/CSS, SQL
- MERN stack (MongoDB, ExpressJS, ReactJS, NodeJS), Django, Dojo Toolkit
- AWS, Chromium DevTools, Git, Unix shell, REST APIs, Service-Oriented Architecture, Agile