Philip Bui

Boston, Massachusetts

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EDUCATION

Worcester Polytechnic Institute, B.S. in Computer Science, GPA 3.8/4.0, Dean's List	Aug 2021 - Dec 2023
Tufts University, M.S. in Human Robot Interaction, GPA 4.0/4.0	Sep 2024 - Dec 2025

SKILLS

Programming:	TypeScript/JavaScript, Python, Java, C, C++, CSS, HTML, C#, SQL, PHP, Swift
Software Development:	React, Git, OpenCV, NumPy, ASP.NET, Node.js, Express.js, PostgreSQL, Telerik, IIS
Project Management:	Slack, GitHub Projects, Teams, Trello, Notion, Jira, Excel, Easy Redmine, Figma

EXPERIENCE

Research Assistant, Human Interaction Lab, Tufts University Jan 2025 - Present
- Developed and maintained GailBot, a PyPI tool for Jeffersonian transcription and conversational analysis.
- Enhanced the PyQT6 UI with core fixes and usability updates, and deployed GailBot updates on PyPI.
- Supported 100+ researchers nationwide on a grant-backed project presented at UCLA conferences.

Full-Stack Software Engineer, enLabel Jan 2024 - 2025
- Resolved 50+ bugs in undocumented legacy code & led UI system redesign, enhancing user experience.
- Architected a React TypeScript frontend with optimized ASP.NET API integration & data-driven interactions.
- Authored technical documentation & developed tools for end-to-end regression testing of C# ASP.NET APIs.

Website Developer, ProsperOn Jun 2023 - Feb 2024
- Developed accessible financial simulation web pages with React Typescript, based on Figma designs.
- Designed and integrated RESTful APIs with Node.js and architected comprehensive uplifting of legacy code.

Operations Intern, Amazon Jun - Aug 2023
- Developed an internal, mapping application, projected to reduce costs by >$10k (95%) per trained employee.
- Built a Node.js server for data retrieval from Amazon's internal database, optimizing inventory tracking.
- Located and monitored >7,000 lost inventory items, reducing misplacement with data-driven software.

PROJECTS

Computer Vision-Guided Sphero Swarm Navigation Framework, Tufts University Sep - Dec 2024
- Developed a swarm navigation system with probabilistic localization and mapping using computer vision.
- Built a scalable microservice architecture with a JavaScript WebSocket server & Python-based servers.
- Utilized multiprocess BLE management for real-time, feedback-based, collision-aware robot coordination.
- Conducted experiments comparing human preferences in manual vs. autonomous control of Sphero Bolts.

AI Platform for Low-Income Housing Development for City of Worcester, MA, WPI MQP Aug - Dec 2023
- Designed and implemented AI-driven due diligence analysis, integrating GIS & open source data pipelines.
- Leveraged a PostgreSQL database and Node.js server, using RESTful express APIs for efficient data retrieval.
- Crafted a modular React Typescript front-end, accommodating evolving datasets and sponsor features.

Nitrogen Cycle Public Outreach AR Game for Boys & Girls Club, WPI IQP Oct 2022 - Mar 2023
- Communicated with the Boys & Girls Club and WPI's STEM Education Center to align project deliverables.
- Led an 8-person team to develop an educational React AR.js game with an 86% approval rating from users.
- Facilitated learning for 100% of players on at least one core concept of nitrogen cycles in agriculture.

OTHER EXPERIENCE

Community Events Coordinator, WPI Powerlifting	Mar 2023 - Dec 2023
Member, Upsilon Pi Epsilon (Computer Science Honor Society)	Jan 2023 - Dec 2023

LinkedIn

Portfolio