Paul Carlson

29 Stage Harbor Road, Chatham, MA 02633

508-681-5556 | pdcarlsono6@gmail.com | pdcarlson.dev | linkedin.com/in/paul-carlson-rpi | github.com/pdcarlson

Education

Rensselaer Polytechnic Institute

Aug. 2024 - Present

Bachelor of Computer Science & Bachelor of Information Technology and Web Science

Troy, NY

GPA: 3.55

Relevant Coursework: Data Structures, Web Systems Development, Foundations of Computer Science, Computer Architecture & Operating Systems

Experience

East-SouthEast, LLC

May 2025 - Present

Web & Geospatial Technology Intern

Chatham, MA

- Architected and built a professional-grade web mapping application from a legacy system, reducing update deployment time across nine towns from hours to minutes.
- Collected precise property and topographic survey data in the field using high-tech equipment, including GPS receivers and total stations.
- Assisted with survey workflows by performing background data work and digitizing linework in Carlson Survey CAD software.
- Digitized over 100 sewer plans in QGIS to build a new interactive map from scratch, making critical infrastructure data accessible to residents.

Sweet Dreams Ice Cream & Candy

May 2023 - Aug. 2025

Chatham, MA

Team Manager & Sales Associate

- Managed daily store operations, including opening/closing procedures and staff oversight.
- Resolved customer issues and ensured a high-quality service experience.

Projects

Interactive GIS Map | East-SouthEast, LLC Internship

- Delivered a dynamic, single-codebase web map serving 9 towns, featuring a suite of commercially valuable tools.
- Developed commercially valuable tools with JavaScript and Mapbox, including a dynamic legend and a multi-page printing utility.
- Built a high-performance, cost-effective tile loader for USGS maps, bypassing expensive third-party APIs.

Fraternity Stewardship Hub | Phi Gamma Delta (Tau Nu)

- Developed a full-stack web app with React and Appwrite to manage a fraternity's budget, now in active use.
- Built an admin dashboard with dynamic budget tracking and a member portal with Google OAuth for purchase suggestions.
- Engineered a custom text parser to enable quick, bulk-import logging of items from receipt text.

Personal Portfolio | Personal Projects

- Built a responsive portfolio with React and Vite, using Appwrite as a BaaS for dynamic project management.
- Implemented a secure admin panel with authentication for CRUD operations on project data.
- Engineered a custom, privacy-focused analytics system to track pageviews and user sessions.

Munsell Color Mapper | Personal Projects

- Currently rearchitecting a cross-platform mobile app in React Native to automate soil color identification
- Defining the new component architecture and state management for features like image capture and color analysis.
- $\bullet \qquad \text{Adapting initial color-matching algorithms, first prototyped in Python, for integration into the React Native framework.}\\$

Technical Skills

Languages: JavaScript, C++, Python, HTML, CSS, PHP

Frameworks & Technologies: React, Appwrite, Mapbox, React Native, Azure, Tailwind CSS, Vite, Expo

 $\textbf{Developer \& Geospatial Tools:} \ \textbf{GitHub, QGIS, VS Code, GPS \& Total Stations}$

Leadership / Extracurricular

Fraternity | Phi Gamma Delta (Tau Nu)

Spring 2025 - Present

Stewardship & Public Relations Chair

Manage the fratemin's Instagram presence greating content to promote events and fundraising compaigns to drive

Spring 2025 - Present

- Manage the fraternity's Instagram presence, creating content to promote events and fundraising campaigns to drive community engagement.
- Responsible for the chapter's household logistics, including managing the meal plan budget and procurement of supplies for all members.

RPI Ski Club Executive Board, Social Media Chair

Fall 2024 - Present

Fall 2024 – Spring 2025

• Grew the club's online community via Instagram and facilitated collaborations with other organizations for planning trips and events.

Eagle Scout | Boy Scouts of America

Nov. 2023

• Led a team to build and install three community benches, managing the project from initial design and fundraising to final installation.