

Philip Roth

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SOFTWARE ENGINEER

Software Engineer with a passion for innovation and a track record of excelling in product design, project management, and creative problem-solving. Thriving in challenging environments, I bring over 15 years of self-taught music production experience, which has shaped my unique approach to sound design through a visual lens, enhancing my coding skills. Furthermore, I actively contribute to open source projects, collaborating with the global developer community to create and enhance software solutions for the benefit of all.

EXPERIENCE

Flatiron School

Remote, USA

Senior Lead Instructor 2 - Software Engineering

November 2020 - December 2023

- ★ Led live lectures on fullstack web development, including JavaScript, React Hooks, Redux, Ruby on Rails, SQL, Python, Flask.
- ★ Conducted 5+ lectures, 2-3 workshops a week, and hosted daily office hours on fullstack software engineering.
- ★ Held daily meetings with students to provide guidance and feedback on technical concepts, process and testing.
- ★ Guided over 20 students per cohort on personal projects from conceptualization to design and implementation.
- ★ Fostered community that increased the cohort's overall wellbeing and allowed for more student engagement.
- ★ Contributed to developing an innovative curriculum, integrating academic content that increased student success.
- ★ Created a library of multimedia resources and activities to supplement existing curriculum materials, providing students with a range of options to differentiate instruction and meet the needs of individual learners.
- ★ Maintained a high student satisfaction CSAT score of over 87% throughout multiple classes.

PRAB Inc

Portage, MI

Industrial Engineer & Estimator

December 2016 - March 2019

- ★ Ran newly acquired subsidiary, Kalamazoo Fabricating, serving more than \$500k of custom manufacturing contracts yearly.
- ★ Independently engineered multiple projects from pain point through design, prototyping, research, implementation and upkeep in under a month each with a part-time focus that would normally take a full time individual two months to complete.
- ★ Improved efficiency of manufacturing floor processes by 10% through improving design of and fabricating new equipment.

ENGINEERING SKILLS

Programming Languages: **Python, JavaScript, Ruby, SQL**, HTML, CSS

Frameworks, Libraries, & Tools: **React**, Rails, Flask, PostgreSQL, ExpressJS, NodeJS, MongoDB, Git, Linux, CI/CD, MySQL, Testing (jest, pytest, rspec), SSH, Cloud Services (AWS)

Other Technologies: Microsoft Office, AutoCAD Mechanical, Inventor, Ableton Live, Six Sigma (Green Belt)

TECHNICAL PROJECTS

AudioPhiles - [Frontend \(ReactJS\)](#) | [Backend \(Ruby on Rails API\)](#) | [Video Demo](#)

A peer to peer audio sample sharing app with a visual representation of the uploaded audio samples.

- ★ Crafted the user interface with React and Redux with Semantic UI for styling.
- ★ Utilized Active Storage to connect to AWS to store the audio files both locally and on the cloud.
- ★ Developed a Rails API backend with endpoints for song, users, tags, and favorites.
- ★ Tailored JSON Web Tokens and localStorage to store encrypted user information client-side.

RetroJS - [Github \(JavaScript\)](#) | [Live App](#) | [Video Demo](#)

A recreation of the game Pong made to play with 2 players on one keyboard.

- ★ Designed and implemented game states and animation in JavaScript to allow fully customizable gameplay.
- ★ Leveraged HTML5 Canvas to render and animate play field and characters.
- ★ Developed a Rails API backend to track players and games.

py-term-helpers - [Python Package](#)

A simple published python package to help users debug their code in terminal with useful print outputs

- ★ Engineered a lightweight suite of Python terminal helpers, including dynamic inputs for a customized user experience
- ★ Developed with built-in Python packages utilizing a class based design for straight forward implementations

EDUCATION

Flatiron School

Chicago, IL

Full Stack Software Engineering (On Campus), Ruby on Rails and JavaScript program

2019

Western Michigan University

Kalamazoo, MI

Bachelor of Science in Entrepreneurial and Industrial Engineering, Minors in Mathematics and Manufacturing

2016