

# Todd Bergman

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[Portfolio](#) [LinkedIn](#) [Github](#)

## SKILLS

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ES6 JavaScript / React / React Native / Redux / Webpack / Ruby on Rails / Python / jQuery / SQL / Git / CSS3 / HTML5 / AWS

## WORK SAMPLES

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### Printstagram

[Live Site](#) | [Github](#)

*Photo sharing web application inspired by Instagram (Ruby on Rails and Postgres backend, and React/Redux frontend)*

- Employed Paperclip to enable users to upload photos hosted on Amazon Web Services minimizing loading time.
- Created modular React components to render photos, users, comments, likes and user avatars to maintain readable frontend code, that is easily reusable and scalable.
- Implemented user authentication using BCrypt, which allows users to create an account with a secure password.
- Utilized CSS Grid to create a clean and intuitive user profile interface that adapts to varying screen sizes.

### ROVE

[Live Site](#) | [Github](#)

*Rove is a mobile application where users can generate an itinerary of activities in a destination of their choice (Ruby on Rails backend and React Native frontend).*

- Created a clean and intuitive frontend design that allows users to persist their itineraries to their IOS calendars.
- Integrated Google Places API to create custom activities to populate user's itineraries and display pertinent information for each activities.
- Integrated Google Maps API to display the location of each activity relative to the user's location.

### Painter

[Live Site](#) | [Github](#)

*Reimagined version of the game Paper.IO (JavaScript, HTML Canvas, Webpack)*

- Implemented ray-casting algorithm to outline and fill arbitrary shapes outlined by the the player.
- Developed collision function to detect collisions between the relative positions of both the player and the enemies.

## EXPERIENCE

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### Graduate Structural Engineer – Diagnostics Group

Walter P. Moore

Aug 2015 - Jan 2018

- Developed multiple structural and durability-related analysis tools using Python. These tools were used company-wide to develop service-life predictions of both new and existing concrete structures.
- Provided assessment, testing, analysis, design, and construction administration services to diagnose restoration needs and engineer necessary repairs to existing structures.
- Led both solo projects and project teams from initial proposals to project completion.
- Served as a resident expert of Life-Cycle Analysis and Life-Cycle Cost Analysis for all WPM practice areas.

### Research Assistant – SIMLab

University of Colorado - Boulder

Jan 2013 - Aug 2015

- Master's Thesis: Integrating service-life and life-cycle assessment for recycled aggregate concrete.
- Developed analytic and numerical models using MATLAB and Python programming languages to predict the service-life of reinforced concrete.

## EDUCATION

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### App Academy (May 2018)

1000-hour coding school with an admissions rate below 3%, emphasizing pair programming, TDD, scalability, algorithms,, security, single-page apps, and web development best practices.

### University of Colorado – Boulder, Boulder, Colorado (May 2015)

MS - Civil Engineering

### Washington University in St. Louis, St. Louis, Missouri (May 2013)

BS - Civil Engineering