

# Tirey (Ty) Morris

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<https://tirey.me>

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## EDUCATION

### University of Texas at Austin

Bachelor of Science in Computer Science (August 2014 - December 2017)

GPA 3.08

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## PROFESSIONAL EXPERIENCE

### Sharethrough - Software Engineer

Jan 2019 - Current

- Implemented various features in the stack of an advertising exchange application, including an **AWS Lambda** to call a data reporting API daily when database thresholds were met, a user interface in **React** for creating/customizing advertisements from a public repository URL and additional metadata, and additional features atop **Ruby on Rails** backend for video/banner ad management.
- Refactored an existing rendering library from **CoffeeScript** to **TypeScript** in a successful attempt at increasing render rate and decreasing loading times.

### Bluebeam, Inc. - Software Engineer 1

May 2017 - October 2018

- Worked in an **Agile** development environment on a PDF document editing application leveraging technologies such as **React**, **Leaflet**, and **Alt** on the frontend, and a combination of **Node** and **SQL Server** on the backend. Helped bring the application from the design stage to production-readiness while addressing bugs that arose and simultaneously implementing/architecting new features.
- Developed an **AWS Kinesis** Data Stream consumer in Java to process large streams of data and dispatch massaged data in **Avro** format to a **SQL** stored procedure. The consumer was used in the lifecycle of a SaaS PDF editing application for consuming document batches.

### Bluebeam, Inc. - Software Engineering Intern

May 2016 - August 2016

- Collaborated in a team of engineers designing a near-realtime analytics and metrics dashboard web application; written with a **React** frontend and **.NET MVC** backend, and utilizing Google Charts with D3 for visualizations.

### UnboundID - Software Engineering in Test Intern

May 2015 - May 2016

- Spearheaded work of a web application that leveraged **Flask**, JQuery, **MongoDB**, and **Bootstrap** to deliver analytics on customer support data in useful formats for internal tools.
  - Created a system provisioning tool with Cobbler, **Puppet**, and Kickstart scripts as a PXEBoot and configuration management solution, saving hours of manual configuration per OS installation. Helped develop an accompanying **Django** web interface to image machines.
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## PROJECTS

**PintOS** - Developed a fully-fledged OS in C from a small skeleton, writing many features from scratch including threading, user programs support, virtual memory, and a proper filesystem

**Steganography** - Implemented steganographic encoding in Python to losslessly conceal the full text of Shakespeare's Hamlet in the unused bit space of each pixel in a 2.4 MB bitmap image

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## LANGUAGES

**Proficient:** JavaScript/ES6, TypeScript, Java, Python

**Experienced:** C, C#/.NET, Ruby on Rails

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## TECHNOLOGIES

**JavaScript** (proficient): React, Node, Redux, Alt, Express, Mocha, Jest, Joi, Sequelize

**Java** (proficient): Jersey, Hibernate, JUnit, Jackson, Selenium

**Python** (experienced): Flask, Restless, SQLAlchemy, PyUnit, Django

**Other:** Linux, Bash, Git, CI/CD (Travis/Bamboo), HTML/CSS, SQL, MongoDB, Swagger