# Patrick Canny

Computer Science Major and Math Minor • University of Kansas, May 2019 • 3.51 GPA

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## **Experience**

**FanThreeSixty** Kansas City, MO

Software Engineering Intern • Mobile Backend

May 2018 - August 2018

- Created robust Java middleware for a growing suite of mobile applications, culminating in a timely client launch
- Minimized application load times and redundant data storage, improving speeds in 10+ production systems
- Organized weekly agendas for intern team meetings, increasing productivity and resulting in a successful project

· Participated in an Agile team structure, positively impacting our team's output for 4 straight sprints

MMA Design, LLC Boulder, CO

Engineering Intern • Deployable Structures

May 2016 - August 2016

- Created, administered and documented engineering confidence tests for deployable satellite hardware
- Designed and manufactured deployable satellite structures using Solidworks 3D Modeling software
- Determined reliable and consistently performing materials for future satellite designs, informing technical choices

**Scales Collective** Ft. Collins. CO August 2015 - Now

Co-Founder Founded the first media platform about competitive yo-yoing and its surrounding subculture

- Researched fan engagement tactics, contributing to a 4x increase in sponsorship inquiries and highly loyal fans
- Collaborated with companies to design, market, and sell unique products, increasing revenues by ~600%

### **Larimer County Conservation Corps**

Ft. Collins, CO

Land Crew Mentor

May 2017 - August 2017

Led conservation project crews of 6-12 students, managing daily outcomes and personal development activities

# Leadership

## Self Engineering Leadership Fellowship

Lawrence, KS

SELF Fellow

August 2015 - Now

- · Competitively selected for leadership aptitude and business acumen, honing skills in management, collaboration, and effective communication
- Coordinated a successful community event, managing logistic challenges and creating an impactful experience
- Co-Founded the SELF newsletter team, providing useful and and thoughtful content to 200+ subscribers

### University of Kansas Student Housing

Lawrence, KS

Resident Assistant

August 2016 - May 2017

- Responsible for mentoring and supporting a community of first-year engineering students on a 24-7 basis
- Responded to crisis events across housing communities, provided on-call support to fellow housing staff

ACM @ KU Lawrence, KS

CS Tutor • Public Relations Chair

August 2017 - May 2018

Engaged in weekly tutoring of CS classes for students of all experience levels, guiding students to success

- Generated advertising material for ACM events and meetings, helping increase and retain meeting attendance

## **Technical Skills**

Programming (Proficient) C++/C • Python Programming (Knowledgeable) Java • Haskell • C#

Web Development Flask • Heroku (Basic) • Google Cloud Platform (Basic) • HTML/CSS/Javascript Workflow/Tools Git/Github • MongoDB • JIRA • Postman • Jupyter Notebook • Pandas • CI (Basic)

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## **Notable Projects**

#### **PGN To Dataframe Parser**

Python, Pandas

- · Wrote a lightweight parser that converts a common chess game notation into a Pandas Dataframe
- · Utilized this parser to analyze 25GB of chess games using various machine learning models

### Lil' C Compiler

C++, Flex, Bison, MIPS, Linux OS

- Created a simple C compiler, using Flex and Bison to define syntactic rules and C++ to define semantic rules
- Compiled to MIPS assembly code and verified correctness using automated testing from the command line

Haskell Interpreters Haskell

- · Wrote a variety of interpreters for different language specifications using Haskell as a backbone
- Included support for arithmetic and boolean expressions, function application, Church booleans and closures

### Cannonball API

Python, Flask, CI, Google Cloud Platform

- Wrote and deployed a Flask API to Google Cloud Platform, allowing event attendees to be invited to a Slack Team
- · Set up a continuous integration pipeline for the API using Codeship, empowering a more streamlined workflow

Quash C, Linux OS

- Implemented a subset of Bash, allowing users to execute common shell commands and interact with the OS
- Supported piping, job status reporting, and normal execution of jobs and built in shell functionality

### Landscape Web Scraper

Python, Flask, Jinja, Heroku

- Leveraged test-driven development to deploy a web scraping application using Python, PyTest, and Flask
- Integrated front-end and server-side functionalities by creating a Flask API, managed meetings and deployment

TomatoBot Python, Slack API

· Wrote a Slack bot that enabled a Slack-native implementation of the Pomodoro timing technique

### **Needle: Rotten Tomatoes for Spotify**

Python, Flask, Jinja, MySQL

· Created a web-app that allows users to rate their friends' Spotify libraries using MySQL for data storage