# Spencer Pearson

github.com/speezepearson　　　linkedin.com/in/srpears　　　optimizationprocess.com　　　speeze.pearson@gmail.com

## EDUCATION

### U. WASHINGTON
MASTER OF SCIENCE
Computer Science
GPA 3.72; 2015–2017
Concentration: Software Engineering

### UC SANTA BARBARA
BACHELOR OF SCIENCE
Physics, Computer Science
GPA 3.98; 2010-2015

## SKILLS

Expert in
- Python
- Go
- TypeScript
- Bash
- Git

Proficient with
- Java
- JavaScript
- Rust
- Haskell
- SQL

Non-software
- Physical sciences
- Statistics

## EXPERIENCE

### WEIGHTS & BIASES  | (SENIOR) SOFTWARE ENGINEER
Jan 2022 - (Jan 2023) - Jan 2024
- Identified a class of serious auth vulnerabilities, developed tooling to systematically fix them. Multiple devs loved the new system; none complained.
- Rearchitected ingestion of run-data, the app's lifeblood and oldest and crustiest ingestion flow, to greatly increase scalability and support newly-necessary forms of parallelism
- Architected and implemented much of a new storage backend for run-data, transforming multiple major customers' experience from "almost unusably slow" to "quite snappy"

### GOOGLE  | SOFTWARE ENGINEER
Jul 2020 - May 2021
- Designed a service to let BigQuery devs instantly load TB of data into experimental instances for ad-hoc testing
- Set up resource monitoring/alerting, preventing multiple multi-hour client-team-blocking outages every week

### DROPBOX  | SOFTWARE ENGINEER
Jan 2018 - Jul 2020
- Built a metrics pipeline that ingests >10M samples/min and lets other Dropbox developers run complex queries on their data in near-real-time
- Architected and implemented a highly available job-execution service, to generate and send reports based on that pipeline's data
- Designed and implemented the client behavior that ensures timely, customizable metric-reporting without risk of DDoS

## PROJECTS

### BIATOB  | WEB APP TO HELP PEOPLE CLARIFY THEIR BELIEFS
biatob.com　·　github.com/speezepearson/biatob
- Helps people assign probabilities to their beliefs and offer bets to their friends
- Skills used: Python, Elm, Protobuf, MySQL; UI design, system design

### BROWSERGUI  | ULTRA-PORTABLE PYTHON GUI LIBRARY
github.com/speezepearson/browsergui
- Runs a GUI in the only frontend every computer has: a browser
- Works out-of-the-box on every major OS / Python version
- Extensively documented

## PUBLICATIONS

### EVALUATING AND IMPROVING FAULT LOCALIZATION
2015 - 2017 | tinyurl.com/srp-fl-paper
- Led a six-person research team over two years
- Developed a novel class of automated debugging tools, 20% more accurate than existing techniques
- Demonstrated a systematic methodological flaw in nearly all existing fault localization research
- Won 3rd place in the 2016 ACM Student Research Competition