# ANTHONY HEIN

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**OBJECTIVE**  Seeking a creative group that will imbue me with the resources, skills, and network to effect change.

## EDUCATION

### Princeton University (9/2018 - 6/2022)
**GPA:** 4.00 / 4.00
**Major:** Computer Science (CS)
**Minor:** Statistics and Machine Learning (SML)
**Awards:** Shapiro Prize for Academic Excellence
**Coursework:**
- Intro to Data Science
- Algorithms & Data Structures
- Probability & Stochastic Systems
- Mathematics for Machine Learning
- Linear Algebra w/ Applications
- Intro to Programming Systems
- Advanced Programming Techniques

### JFK Memorial HS (9/2014 - 6/2018)
**GPA:** 4.33 / 4.33
**Awards:** Valedictorian, National AP Scholar,
Student Body President, Mr. JFK
**Coursework:** Calculus, Statistics, Physics

## TECHNICAL SKILLS  (desc familiarity)

### Programming Languages
Python • Java • C • Go • JavaScript • R • ARMv8

### Design / Markup
HTML5 • LaTeX • CSS3 • Bootstrap 4 • bulma.io

### Database Management Systems / Tools
SQLAlchemy • SQLite • PostgreSQL • MongoDB

### Web Application Tools
Flask • Jinja2 • Heroku • Express • Pug • AWS

### Miscellaneous
Microsoft Office • numpy • Google API Console

## MEMBERSHIPS

### Princeton PUZZLES
Treasurer (9/2018 - present)
Raise and manage $6000 + company swag annually to host Princeton Puzzle Hunt.

### Princeton Community Projects Studio
Computing Mentor (9/2019 - 3/2020)
Made weekly visits to nearby grade school to help students of underrepresented minorities learn computer science.

### Princeton Guitar Club
Treasurer (11/2019 - present)
Seek funding, reserve practice space, and schedule performances for newly-founded club.

## WORK EXPERIENCE

### U.S. Air Force (AF) Detachment 12: Kessel Run (6/2020 - 8/2020)
Software Engineering (SWE) Intern
Node.js • Visual Studio • GitLab • Geospatial Data • Legacy Software

Refurbished JS web app that distributes map data with newer software.

Researched COV19 effects on AF; presented findings and suggestions.

### Princeton University Computer Science Dept (9/2019 - present)
Peer Tutor & Lab Teaching Assistant
Java • C • ARMv8 (Assembly Language) • Machine Language • Debug

Assist students in introductory programming courses to debug.

Upheld responsibilities during COV19 pandemic through use of Zoom.

Provide 1-on-1 on-call tutoring in Algorithms and Data Structures.

### Pratt & Whitney (6/2019 - 8/2019)
Digital Technology Leadership Program Intern
Oracle PL/SQL • Automation • Workflow Software • Microsoft SSRS

Set up real-time reporting on shop floor operations w/ Microsoft SSRS.

Researched low-power, cheap alternatives to PLCs used on shop floor.

Streamlined service requests with United Technologies Corp software.

Wrote SQL scripts to automate data transformation from Excel to Oracle PL/SQL tables to be used by company scheduling software.

## PROJECTS  (more details available on anthonyhein.com)

### Game21 (7/2020)
Go (Golang) • Reinforcement Learning (RL) • No 3rd-Party Code

Implemented environment for simple two-player game and trained agent to play game using RL; learned optimal strategy in $10^6$ games.

### APSA Matcher (6/2020)
Python • Google API Console • Healthcare • Code for URM • Automation

Worked w/American Physician Scientists Association to match student underrepresented minorities to principal investigators for summer.

### Lingo Plinko (6/2020)
JavaScript • MongoDB • Heroku • Express • Pug • Sockiet.io

Developed online, responsive, 2-player game for COV19 virtual bonding.

### MealQueue (4/2020)
Python • SQLAlchemy • Flask • Bootstrap • Project Management/Leader

Led full stack development team to create three-tiered web application for online-ordering for Princeton University Dining Services program.

### Gin Rummy EAAI Research Challenge (7/2020)
Python • Java • Reinforcement Learning (RL) • Research • Game Theory

Translated Java to Python to create RL CFR agent to play Gin Rummy.

### Zage Operational Tools (5/2020 - present)
Python • Google API Console • Automation • Startup • Client Relations

This resume was written with HTML and CSS then printed as a PDF.