

# Joseph Anthony Bosco IV

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## Education

**Washington and Lee University** - Class of 2024

Lexington, VA

Bachelor of the Sciences, Computer Science Major

Overall GPA 3.89 | Major GPA: 3.96

**Relevant Coursework:** Artificial Intelligence, Databases, Algorithm Analysis, Advanced Topics in Robotics, Software Development

### Extracurricular Activities

- Varsity Wrestling, Academic All-American
- Health and Safety Officer, Pi Kappa Alpha Fraternity, Pi Chapter
- Chapter Organizer, Queer in AI, affinity group of oSTEM
  - Established chapter at Washington and Lee
  - Advise LGBTQ+ undergraduates on AI and Computer Science career resources

## Computer Skills and Recent Projects

### Programming Languages & Skills

- Highly Proficient: Python
- Proficient: Java, SQL
- Experienced: C, React, Haskell
- Skilled:  $\text{\LaTeX}$ , Git, Linux, AWS, Google Cloud, Excel, Powerpoint

### Kaggle Competition

Nov. 2023

- Developed deep learning model for [Kaggle.com titanic competition](https://kaggle.com/titanic) using PyTorch
- Classified target-less data entries with 78% accuracy, finishing in top 25% on competition leaderboard

### Personal Website

Feb. 2023

- Designed [personal website](#) using HTML and CSS
- Implemented request handling and data collection with SQLite and Python Flask

### OpenAI Gym

May, 2022

- Implemented reinforcement learning for OpenAI's [Cart Pole](#) and [Pendulum](#) environments
- Solved both environments with 1,000 episodes of training to reach maximum reward threshold

### Mathematical Image Generator

Oct.-Dec. 2021

- Programmed application in Java to generate images from RGB triples from mathematical expressions
- Collaborated with five peers to implement UI, expression tree and parser: approximately 2,000 lines of code

## Experience

### Inkwell eBook Platform

Jul.-Sep. 2023

Software Developer

- Developed the backend for Inkwell's initial website
  - Designed database server using Postgres for storing patron and publisher information
  - Handled HTML requests and served database to frontend using Django
  - Maintained Linux host on remote machine via SSH

Developer Team Lead

- Directed weekly remote meetings with team of nine developers
  - Reviewed team contributions and planned tasks for upcoming week
- Delegated responsibilities to best suit each developer's skill set
- Onboarded and guided new developers through initializing development environment
- Prioritized requests from project manager and motivated team to meet deadlines

### Washington and Lee University, Computer Science Department

Teaching Assistant

Sep. 2021-Apr. 2022

- CSCI-111: Introduction to Programming in Python
- CSCI-112: Advanced Introduction to Programming and Data Structures

Summer Research Scholar working under Computer Science Professor Taha Khan

Jun.-Sep. 2022

- Surveyed options for how to handle digital footprints when an internet user dies
- Established research base of 95 digital estate management services and summarized prior academic work
- Drafted digital survey, qualitative interview and request for IRB approval

Independent Research under Neuroscience Professor Natalia Toporikova

Jan.-Apr. 2023

- Analyzed laboratory data to make inferences on spider mortality
- Parsed 10,080-row .CSV spreadsheets using Pandas dataframes
- Developed neural net classifier using PyTorch and NumPy with 96% classification accuracy, 0% false negatives