# JUSTIN DEUTSCH

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## OBJECTIVE
Seeking a full time position focused on data science, artificial intelligence, and machine learning.

## EDUCATION

**Bachelor's of Science in Computer Science, Math Minor**
*Virginia Tech, Blacksburg, VA, May 2021*
- In Major GPA: 4.00 out of 4.00
- Overall GPA: 3.94 out of 4.00

**High School Diploma**
*Allentown Central Catholic High School, Allentown, PA, June 2017*
- GPA: 4.14 out of 4.00

## SKILLS

Python

C/C++

Java

Docker

JavaScript/TypeScript

Git

## WORK EXPERIENCE

**AI Intern** — *January 2019 - Present*
*Alion Science and Technology, Annapolis Junction, MD*
- NEAT genetic algorithm for training AI models
- Geometric learning for graph classification
- DDQN for path planning in unknown environments
- Ensured best practices for Docker and GitLab

**AI Intern** — *May 2018 - September 2018*
*Engility Corporation, Chantilly, VA*
- Launched the Adaptive Training research project
- Developed a data pipeline to update training based on past results
- Collaborated on a 6 person team on various technical solutions

**Summer Research Intern** — *June 2017 - August 2017*
*Intertek, Allentown, PA*
- Helium Pycnometry to determine density
- Differential Scanning Calorimetry to measure heat of fusion
- Dynamic Mechanical Analysis to study storage and loss modulus
- Fourier Transform Raman Spectroscopy for spectral vibrations

## LEADERSHIP

**Relay For Life Director** — *May 2020 - Present*
Lead a 30 person executive board and 100 person committee to host the nation's largest collegiate Relay For Life event fundraising $400,000 for the American Cancer Society by facilitating various campaigns to raise awareness on campus

**Relay For Life Webmaster** — *September 2019 - May 2020*
Managed a 3 person team to oversee all email marketing campaigns and analyzed fundraising data for effectiveness

**Computer Science Ambassador** — *March 2019 - Present*
Hold various information sessions to inform current and potential students about opportunities in Computer Science

**Software Sub-Team Lead** — *May 2018 - May 2019*
Headed a 5 person team developing software for the AAV-VT design team and formalized documentation of final results

**Eagle Scout** — *2017*
Fundraised $1,700 dollars and led up to 6 people at a time to construct a firepit with benches and path

## PERSONAL PROJECTS

**SpaceX RL Lander** — *Present*
Training TD3 and PPO to land a rocket vertically in an OpenAI Gym environment

**AI Poker Player** — *Present*
Using game theory and statistics to train a reinforcement learning to play poker including real time player strategy learning

**Pathfinding Visualizer** — *April 2019*
Allows the user to set start, finish, and barrier points then depicts the A* algorithm in real-time

**VT Facebook Chatbot** — *December 2017*
Answers various questions such as the address of or telephone number for a building on campus

## RELEVANT COURSES

Intro to Computational Bioinformatics — *Fall 2020*

Cloud Software Development — *Fall 2020*

Formal Languages — *Fall 2020*

Intro to Data Analytics and Visualizations — *Spring 2020*

Cryptography I — *Spring 2019*

Docker Containerization — *Spring 2019*

Computational Neuroscience and Engineering — *Fall 2019*