Aviel Resnick

Software Developer Specializing in AI

CONTACT

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avielresnick.com

SKILLS

Python:

Developed numerous software projects, research studies, and scripts in Python 3.

Java:

Academic experience with Java for both application development and scientific computation.

Artificial Intelligence:

Professional experience using TensorFlow for Machine Learning in research and software domains.

Web Development:

Working knowledge of HTML5, CSS3, JS, and Django.

Languages:

Fluent: English, Russian
Proficient: Hebrew, Spanish

EDUCATION

University of Pennsylvania, SEAS — Philadelphia, PA
Bachelor of Science in Engineering, Computer Science — *Sept. 2020 – May 2024*

Lower Moreland High School — Huntingdon Valley, PA
Rigorous STEM Oriented AP Courseload, National Merit Finalist — *Sept. 2016 – June 2020*

WORK EXPERIENCE

Kod*Lab at GRASP Lab | Artificial Intelligence Researcher — Philadelphia, PA — *July 2021 – Present*

- Designed a measure for robot locomotion robustness using generative adversarial networks (GANs).
- Experimented with different network architectures and loss functions to optimize performance.
- Managed a Linux server for remote training and testing of the GAN.
- Primarily utilized Python, TensorFlow, SciKit-Learn, NumPy, and Git.

Children's Hospital of Philadelphia | Software Developer — Philadelphia, PA — *June 2019 – Sept. 2020*

- Designed and implemented medical image segmentation software in Python 3.
- Automated the morphometry of histologically stained, stent-implanted arterial images.
- Researched the application of unsupervised learning to the segmentation of medical images.
- Primarily utilized Python, PyTorch, OpenCV, and Tkinter.

INDEPENDENT EXPERIENCE

Penn Aerospace Club | High Altitude Balloon Team | Software Director — *Sept. 2020 - Present*

- Led the development of a real-time communication interface with a high-altitude payload, and facilitated full connectivity with an onboard sensor suite at altitudes of over 70,000 feet.
- Primarily utilized Django, HTML, CSS, JS, Arduino, and Git.

Independent Research Project: Reconstruction of Phylogenetic Trees — *2019*

- Evaluated the effectiveness of using the Levenshtein distance between RNA sequences of species in reconstructing their evolutionary tree.

Independent Research Project: Machine Learning for Medical Diagnosis — *2018*

- Applied machine learning classification algorithms to diagnose malignant breast tumors based on numerical data extracted from fine needle aspiration.
- Primarily utilized Python, SciKit-Learn, and Matplotlib.