Jacob Platin

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EDUCATION AND SKILLS

University of Pennsylvania, School of Engineering and Applied Science   **Philadelphia, PA**
*Master of Science in Engineering in **Robotics** (Computer Vision Specialty), GPA 3.5/4.0*   Aug 2017 – May 2022
- **Relevant Coursework**: Machine Learning, Network System Design, Computer Vision, Deep Learning

University of Pennsylvania, School of Engineering and Applied Science   **Philadelphia, PA**
Bachelor of Science in Engineering, Majors in ***Computer Science*** & ***Economics**, GPA 3.6/4.0*   Aug 2017 - May 2022
- **Relevant Coursework**: Cloud Computing/Scalability, Econometrics, Game Theory, Data Structures, Software Design
- **Relevant Languages:** Python (strongest), C++/C/C#, Java, R, SQL, Bash
- **Skills and Frameworks**: PyTorch, AWS (Compute + ES), Jenkins, Kubernetes, GCP, Express, CSS, Angular, Rails, Git
- **Areas of Interest:** Reliable neural networks, convolutional neural networks, autonomous (aerial) vehicles

ETH Zurich, Departments of Computer Science and Economics   **Zurich, Switzerland**
Exchange Program, GPA 3.75/4.0   Sep 2019 - Dec 2019
- **Relevant Coursework**: Computer Architecture, Reliable Artificial Intelligence, Wireless/Mobile Computing

EXPERIENCE

Unity Technologies | *Software Engineer Intern (Robotics)* | **Seattle, WA**   **May 2021 - August 2021**
- Utilized linear algebra and robotics techniques to integrate inverse kinematics directly into Unity
- Implemented joint controllers to model realistic robotic behavior
- Engineered a VR experience to capture a robot's workspace in Unity

NVIDIA | *Software Engineer Intern* | **Redmond, WA**   **February 2021 - May 2021**
- Developed a cloud-based searching solution for game meta-data using Elasticsearch, GraphQL and AWS
- Spearheaded project architecture and implementation, in addition to documentation
- Created novel, scalable searching algorithms

Unity Technologies | *Software Engineer Intern (AI)* | **Seattle, WA**   **May 2020 - August 2020**
- Explored and implemented classical and machine-learning driven robotic manipulation in the Unity engine
- Integrated motion planning and inverse kinematics for robotic arms (e.g. UR3) into Unity
- Tested and integrated a more efficient bridge between ROS and Unity

Aidoc | *Cloud Computing Intern* | **Tel Aviv, Israel**   **June 2019 - August 2019**
- Deployed medical (including pulmonary embolism and intracranial hemorrhage) prediction algorithms and data selection tools on AWS EC2 instances with a robust EFS and EBS storage solution using Python
- Participated in weekly discussions on state-of-the-art medical deep-learning algorithms and used Keras to test the feasibility of these developments on Aidoc's current prediction algorithms

PROJECTS AND TECHNICAL LEADERSHIP

Wharton Undergraduate Aerospace Club | *Co-Founder*   **October 2020 - Present**
- Co-founded Wharton's first aerospace club focused on applying business principles to aerospace creatively.

CAS-NN (Commercial Air Safety – Neural Network) | *Lead*   **June 2019 - Present**
- Currently developing a robust neural network to detect maintenance anomalies in commercial aircraft
- Anomalies include metal fatigue and fuse-pin misalignment, and adversarial defense techniques are used.

Penn Aerospace Club | *Co-Head*   **August 2017 - Present**
- Spearhead Penn's 100-person aerospace club, including overseeing rocketry, ballooning, and aircraft
- Enabled our teams to travel to the 3 national competitions and complete over 10 progressive launches

DATF (Domestic Autos Time Series Forecast) | *Author*   **January 2019 - Present**
- Currently undertaking advanced economic time series forecasting using R as part of Penn Economics

PythonCV | *Sole Programming Lead*   **January 2019 - August 2020**
- Implemented a variety of advanced computer vision algorithms in a simple Python library

OTHER LEADERSHIP

Phi Kappa Psi | *President*   **November 2019 - Current**
- Leading the Iota chapter at Penn, which has over 70 members and partakes in a variety of community events