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 – Dec 2021

- **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 3.5/4.0* — Aug 2017 - Dec 2021

- **Relevant Coursework**: Cloud Computing/Scalability, Econometrics, Game Theory, Data Structures, Software Design
- **Relevant Languages:** Python (strongest), C++/C, Java, Go, R, Groovy, SQL, OCaml, Swift, Ruby, Bash
- **Skills and Frameworks**: PyTorch, AWS (EC2 + EBS/EFS), Jenkins, Kubernetes, Azure/GCS, Express, CSS, Angular, Rails, Git
- **Areas of Interest:** Reliable neural networks, automation, testing, full-stack integration, cloud computing, infrastructure

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 (AI)* | Seattle, WA — **May 2020-August 2020**

- Exploring and implementing both classical and machine-learning driven robotic manipulation in the Unity engine
- Integrating motion planning and inverse kinematics for robotic arms (e.g. UR3) into Unity
- Worked with *GoogleX* to create 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

Strayos | *Data Science and Full-Stack Intern* | St. Louis, MO — **May 2018 - August 2018**

- Implemented a role-based action control (RBAC) protocol within Strayos' web app using full-stack knowledge, which included utilizing Ruby, Rails, SQL, Angular, RxJS, CSS, JavaScript, and HTML
- Created internal and end-user documentation and used SQL, PostgreSQL, and SSH protocol to migrate while also analyzing user data via Hadoop and performing basic Kubernetes tasks

PROJECTS AND TECHNICAL LEADERSHIP

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 - Present**

- Implemented a variety of advanced computer vision algorithms in a simple Python library

NBA RankSVM | *Co-Programming Lead* — **August 2018 - February 2019**

- Created a Python library that implements the RankSVM machine learning algorithm to predict NBA (basketball) final standings for over 40 future seasons using only past season data in CSV format

TAMID Fund | *Fund Team Leader* — **August 2017 - December 2018**

- Managed over $10,000 in diversified assets; achieved 13% YoY growth; recruited 20 new members

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 on-campus community events