

# Ahmed Amin

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## Education

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Temple University, College of Engineering  
**Bachelor of Science in Mechanical Engineering**

Philadelphia, Pennsylvania  
Graduation Expected: May 2020

## Relevant Experience

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**Amazon** Philadelphia, Pennsylvania  
Seasonal Sortation Associate/FC Associate I (manual labor job) June 2019 - August 2019, August 2020 - Present

- Sorted packages at Amazon Delivery Station. Picked and stowed products at Prime facility

**Coder's Market (unlaunched startup)** Philadelphia, Pennsylvania  
Software Engineering March 2019 - November 2019

- Worked with a team of students / entry level professionals to create a startup to improve access to robotics and machine learning algorithms.
- Worked on a serverless backend/API. Utilized NodeJS, Serverless Framework, AWS Lambda, DynamoDB, API Gateway, and Docker/Docker Compose. Learned the basics of Javascript, DevOps, and clean code.

**AlphaPilot 2019: Drone Racing AI Challenge** Philadelphia, Pennsylvania  
Machine Learning and Computer Vision March 2019

- Worked with a team of students to implement computer vision/object detection algorithms using machine learning and OpenCV.
- Cleaned dataset and used Docker to easily set up an environment for GPU training.
- Used convolutional neural networks and transfer learning to detect objects in images.

**Robot Arm Control (personal project)** February 2019 - Present

- Developed simple forward and inverse kinematics algorithms in Matlab

**Temple University** Philadelphia, Pennsylvania  
Undergraduate Research May 2017 - July 2017

- Research and prototyping in Soft Robotics
- Utilized Solidworks, 3D printing, Nitinol wire, Ecoflex soft material and molding

**Robolancers (High School Robotics Team)** Philadelphia, Pennsylvania  
Scouting Lead, Mechanical Team member 2015-2016

- Led a team of ~6 people. Researched other robotics teams and created a system for data collection and analysis (2016).
- Designed and built mechanical components of a robot as a mechanical team member (2016).

## Additional Information

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- Mechanical specific skills:** Mechanical vibrations, CAD design and simulation in Solidworks and ANSYS, finite difference method, wet layup of composites (carbon fiber).
- Control and machine learning skills:** PID Control (frequency domain), forward/inverse kinematics, computer vision, deep learning, convolutional neural networks.
- Programming and dev skills:** Python, Matlab, Docker, Keras, Tensorflow, OpenCV. Some experience with Javascript (NodeJS), Serverless Framework, AWS Lambda and DynamoDB.