



Sadat Shaik


Education

University of Pennsylvania Downingtown STEM
2015 – 2019 Academy
GPA: 3.74 / 4.00 GPA: 4.0/4.0

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Experience

Bentley Systems – Exton, PA

Strategic Technology Advancement Intern, Summer 2016

Given a house, mall, or other large structure, our goal was to create an iOS app that generates a flight path for a quadcopter to follow to take the perfect pictures for 3d model generation.

- Implemented "Exclusion Zones" area where the flight path cannot cross.
- Asynchronously generated / cached image to reduce memory usage.
- Suggested, then implemented collection view for the user to see missions.
- Implemented ability to specify points by drone rather than screen tapping.
- Integrated internal Bentley Geom API.
- Optimized workflow by merging functionalities of separate screens.
- Improved code readability by grouping code into categories and extensions.

University of Pennsylvania – Philadelphia, PA

Teaching Assistant

- CIS 160 – Mathematical Foundation for Computer Science, Spring 2016
- CIS 121 – Data Structures and Algorithms, Fall 2016 - Current
- Prepare / Lead Recitation weekly
- Grade Exams / Homework for students weekly
- Prepare / Co-Lead office hours weekly for students.

Undergraduate Research Intern, Summer 2015

- Successfully created a C++ program that would dynamically create a 3D model of the surrounding environment using data gathered from a phone mounted on a quadcopter.
- Implemented Scale-Space reconstruction, Delaunay Triangulation, Poisson Reconstruction to create 3D model.
- Evaluated which of the implemented algorithms was most accurate.
- Used RVIZ and ROS to read data from phone and visually display the generated 3D model.

Leadership

Lead Organizer of Annual UPenn Robotics Fair, Spring 2016

- Raised \$2000
- 70+ students attended
- 7 distinguished speakers from Robotics / STEM fields

Co-Founder of STEMHacks, Spring 2014

STEMHacks is one of the first high school Hackathons (24 hour programming competitions) in Pennsylvania. We strive to promote computer science and the STEM fields to high schoolers around the state.

- Contacted 100+ companies, raising \$10,000+.
- Had 200 + register, with ~70 students attend.
- Judges were CEO's of companies and employees from companies such as AT&T, Y-Prime, Evolve IP.
- Managed core team of ~10 students.

Honors / Achievements

- Dean's List 2015-2016
- 2nd place HackBCA, largest high school Hackathon on East Coast
- FBLA: 2nd place Cyber Security Regionals, 3rd place Cyber Security States

Skills

Languages: Java, Objective-C, C++, Javascript, Python, OCaml, PHP, SQL, XHTML

Technologies: JQuery, NodeJS, Bootstrap, XCode, MySQL, Git

Competencies: iOS Development, Web Development, Machine Learning, Computer Vision, Robotics