# **Akash Kumar**



## Work Experience

#### Intigo3D: Full Stack Intern turned Engineer

July 2017-March 2018

- > Programmed arduino controlled 3D printers to accept commands and provide failure statistics to a Raspberry Pi
- > Created an encrypted print pipeline using Python, Flask, and AWS on a raspberry pi and AWS IoT
- > Rebuilt print pipeline yielded a 95% success rate and 70% faster operation compared to pre-existing solutions.
- > Created a web service for designers that allowed them to sell their work and fight piracy using React and Node.

#### NYU, MakerSpace: Technical Lead (Student TA)

2016-2017

- > Built the initial software infrastructure using Node, Flask and Python paired with the machines in the space.
- > Stopped hundreds of dollars in theft through the software tracking and server based monitoring I created
- > Coordinated larger projects with other staff and taught technical skills in weekly workshops to NYU students.

#### **Grafiti:** Data Visualization Intern

Fall 2017

- > Built interactive visualizations using 6 million lines of data to demonstrate the Grafiti system and methodology.
- > Used Kaggle for initial data, Python (pandas) for filtering, Google Big Data and Cloud for visualization and analysis.

#### Mango Concept: Rapid Development Intern

Summer 2016

- > Rebuilt video system using FFMPEG, SQL, Javascript, and PHP. Decreased load times by 300%.
- > Started an advertising platform for one of Mango's brands, increasing product awareness by 75%.

#### NYU, Engineering and Technology Forum: Prototyping Focused Teaching Assistant

2015 - 2016

- > Taught a weekly class for all first-year engineering students about entrepreneurship.
- > Developed and graded weekly projects based on the lean startup methodology.

#### NYU, Prototyping Lab: Lead Researcher

2014 - 2016

- > Led a team of engineering and medical students to reduce operating errors using embedded sensors.
- > Investigated surgery issues using Processing and MATLAB, reducing detection time from minutes to milliseconds.

#### NYU, Chemistry Department: Research Assistant

Summer 2014

- > Applied existing research to create triple stranded D.N.A crystals, reducing failed runs by 50%.
- > Tested experimental growth patterns for D.N.A, leading to a 20% decrease in growth time.

#### Howl Interactive Incorporated: Co-founder

2013 - 2017

- > Built games and utilities for mobile. Used Swift, Java, and frameworks like React Native as they became available.
- > Incorporated the company and handled the business side as well, even got NYU to pay for the lawyers!

## <u>Recent Projects</u>

**Rocket Telemetry:** Used python and sensors (accelerometers, GPS, cameras) to track a rocket with triple redundancy **D-20:** Implemented a server side neural network to detect different kinds of music and display it with lights on an art piece **Uber Movement:** Made Uber Movement data accessible in a public facing API and displayed it in graphs using node

### Skills

## Relevant Course Work

Computer Science **Design** Adobe Suite Javascript Java Digital Logic User Experience Design Data Structures MATLAB Computer Architecture Creative Coding Flask Node JS Data Structures Wearables Python Go Web Development Ideation and Prototyping HTML/CSS React Dynamic Web Apps **Motion Graphics** Data Visualization Typography

## Education

#### New York University | School of Engineering

January 2018

B.S. Integrated Digital Media

A degree that combines computer science with human centered design to create compelling interfaces.