

# DEVANSH KUKREJA

Algorithms, Mobile Development, & Design

**Website**  
devanshk.xyz

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## EDUCATION

CARNEGIE MELLON UNIVERSITY GPA: 3.66

BS, COMPUTER SCIENCE & INFORMATION SYSTEMS: May 2019

- Dean's List

TA for Mobile and IoT Computing

- Graduate and Upperclassmen level course
- Delivered lectures, hosted office hours, and graded homework

Relevant Coursework:

- Principles of Imperative Computation - Spring 2016
- Concepts of Mathematics - Summer 2016
- Fundamentals of Computer Science - Fall 2015



## RELEVANT PROJECTS

### AWAP

Algorithms With a Purpose Coding Competition

- Top Freshman Team
- Programmed a network-based package delivery optimization algorithm

### PULSE

Multiplayer Audio-Based Game that accepts any song as input

- Won 2nd Overall at 15-112 Term Project Showcase
- Programmed algorithm to detect beats and their energy using data structures for efficient computation
- Implemented Fast Fourier Transform to create equalizer

### AFIS

Automated Fingerprint Identification System

- 1st in Senior Division at Washington State Science Fair & appeared in King County AFIS magazine
- Programmed image analysis algorithms to detect minutiae points in given prints and compare them for similarity

### AWARE

Detect Motion Gestures and Customize Reactions

- Developed Android app - available in the Play Store: <https://goo.gl/Eqm3iM>
- Designed algorithms to detect hand waves, shakes, being pulled out of pocket, and being thrown into the air based on sensor data

### Bhangra in the Burgh X

Official Website for Pittsburgh's Premiere Bhangra Competition

- Website is live and viewable online: [BhangraInTheBurgh.org](http://BhangraInTheBurgh.org)
- Developed from scratch using HTML, CSS, and Javascript
- Fully mobile-optimized with custom navigation drawer and compressed images/pdfs

### DUCO

Tinder for Art Museums

- Built at the Carnegie Museum Of Art's data hackathon
- Developed Android app that processes json dataset of artwork and implements a card-swipe based UI
- Developed backend algorithm to adapt art suggestions to user preferences

### SOUNDHOP

Synchronized Music Across Devices

- Finalist at AngelHack Seattle
- Developed Android app that links with Firebase to play and pause music simultaneously across devices running the app



## WORK EXPERIENCE

### AUTOLAB

Front-End Developer - Summer 2016

- Ruby on Rails web development
- Modernized UI and improved csv import robustness

### STEAM FOR KIDS

Co-Founder, Teacher, and Designer - Summer 2015

- Taught basic programming algorithms and Scratch to elementary school students
- Coordinated logistics for transport and supplies
- Designed logo and PR material

### AEROJET ROCKETDYNE

Engine Test Intern - Spring 2015

- Planned test operations for a liquid-fueled rocket engine
- Enacted cold-fire test to determine valve resistance
- Conducted hot-fire test to measure actual thrust
- Designed logo for internship team

### VOICEBOX TECHNOLOGIES

Mobile Development Intern - Summer 2014

- Integrated the voice recognition company's demo app with an unsupported SDK
- Started from scratch; learned Android development



## CODING TECHNOLOGIES

### EXPERIENCED

Python Android Java C# Firebase  
HTML CSS Javascript

### PROFICIENT

R Lua C0 C



## DESIGN SKILLS

### EXPERIENCED

Photoshop Illustrator InDesign

### PROFICIENT

TinkerCad Inventor 3dsMax Sketch



## PRE-COLLEGE HONORS

Eagle Scout  
Associate Student Body President  
National Honor Society President



## HOBBIES AND ACTIVITIES



Dance Team  
National Champions - May 2016



Robotics Club



Competitive Smash



Cooking