

DEVANSH KUKREJA

Algorithms, Software Development, Design

Website
devanshk.xyz

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EDUCATION

CARNEGIE MELLON UNIVERSITY GPA: 3.70

BS, COMPUTER SCIENCE & INFORMATION SYSTEMS: May 2019

- Dean's List every semester

TA for Mobile and IoT Computing 46-866

- Graduate-level course
- Delivered a lecture, hosted office hours, and graded homework

Relevant Coursework:

- Functional Programming - Fall 2016
- Database Design/Development - Fall 2016
- Principles of Imperative Computation - Spring 2016
- Concepts of Mathematics - Summer 2016



PROJECTS

ALGORITHMS WITH A PURPOSE

[Optimal Cost Finding Graph Traversal Algorithm](#)

- Best Performing all-freshman team among multiple schools
- Programmed a node-based game AI to optimize orders and determine ideal warehouse locations via degree centrality

PULSE

[Audio Analyzer/Visualizer](#)

- Won 2nd Overall out of 300 at 15-112 Term Project Showcase
- Programmed algorithm to detect beats and their energy using numpy data structures for efficient computation
- Processed raw audio chunks through a Fast Fourier Transform

AFIS

[Automatic Fingerprint Identification System](#)

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

AWARE

[Motion Gesture Recognition and Reaction Mobile App](#)

- 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

DUCO

[Self-Improving Art Suggestion Mobile App](#)

- Built at the Carnegie Museum Of Art's data hackathon
- Developed Android app that processes json dataset of artwork, multithreads loading of images, and implements a card-based ui library
- Developed point-based algorithm to refine artwork suggestions based on user feedback

SOUNDHOP

[Synchronization of Audio Across Mobile Devices](#)

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



WORK EXPERIENCE

SKURT

[Independent Contractor - Summer 2016](#)

- Rebuilt Silicon Valley Startup's Website
- Built in Node.js using Express templating
- Currently live at skurt.com

AUTOLAB

[Front-End Developer - Summer 2016](#)

- Ruby on Rails web development
- Modernized UI and improved csv import robustness among various bug fixes
- Open-Sourced Project: <https://github.com/autolab/Autolab>

STEAM FOR KIDS

[Co-Founder, Teacher, and Designer - Summer 2015](#)

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

VOICEBOX TECHNOLOGIES

[Mobile Development Intern - Summer 2014](#)

- Integrated the voice recognition company's demo app with an unsupported SDK



CODING TECHNOLOGIES

EXPERIENCED	Python	Android	Java	C#	Firebase
	HTML		CSS		Javascript
PROFICIENT	R	SQL	CO	C	Node.js



DESIGN SKILLS

EXPERIENCED	Photoshop	AfterEffects	Illustrator	
PROFICIENT	TinkerCad	Inventor	3dsMax	Sketch



Leadership

Bhangra in the Burgh X Tech Operations Chair
CMU Raasta Props Chair (**National Champions - May 2016**)
Eagle Scout
Student Body President (High School)
National Honor Society President (High School)