# Wassim Gharbi

Design Technologist / Full-Stack Software Engineer

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## Languages

English, French & Arabic

### **Honors & Awards**

Phi Beta Kappa

**Honors Society** 

Pi Mu Epsilon

**Honors Society** 

P Epsilon Pi Upsilon

Honors Society (Vice President)

### Other Awards & Scholarships

Dean's List for Academic Excellence
AMIDEAST DKSSF Scholar
Lafayette EXCEL Research Scholar
Lafayette International Scholarship
Lafayette Leadership Institute
Cryptography Competition Winner
Business Plan Competition Winner
Dun & Bradstreet Business Certificate
Google Ads Fundamentals Certificate

### **Skills**

Project Management, Software Engineering, Interaction Design and Prototyping, Graphic Design, Mobile & Web Development, UI & UX Design, Computer Vision and HumanComputer Interaction Research, AWS Server Management.

Proficient in Photoshop & Sketch. IoT Devices & Electronics hobbyist, creating multiple Raspberry Pi and Arduino projects.

## **Development Stack**

Node.js, React.js, React Native, Express.js, Next.js, Electron, HTML, CSS, Javascript, Java, PHP, Python, Django, Tensorflow, jQuery, Closure, Soy, SQL, MongoDb, Firebase, C++ (Qt), R, Lua, LaTeX, Shell, Hadoop MapReduce, Rasa NLU.

Experience with Google Cloud, Amazon AWS, softwar Continuous Integration (Travis, etc.), OpenAPI, demos. IoT, Heroku, Firebase, Facebook & Google 
SDKs, Leap Motion & Kinect.

### **Research & Publications**

Finding your Lookalike: Measuring Face Similarity Rather than Face Identity

CVPR Workshop on Visual Understanding of Subjective Attributes 2018 Sadovnik A., Vu T., Gallagher A. We propose a new dataset for facial similarity and

introduce the Lookalike network for similar face classification outperforming ad hoc usage of face recognition networks. arXiv:1806.05252

### **Education**

**B.S. Computer Science, Minor in Mathematics**Lafayette College '19 3.849 Cumul. GPA

# **Work Experience**

Software Engineer II Google, Area 120 Area 120

July 2019 - Present Mountain View, CA

Focused on improving web performance and exploring new opportunities for novel content media (e.g. Stories & short videos).

(July 2019 - Dec 2019) AMP Core UI / Bento AMP (amp.dev)

- Managed, launched, landed and maintained core experiences on the open source AMP Project directly affecting 2B+ web pages
- Spoke at various conferences on Javascript performance

(Dec 2019 - July 2020) Storytime/Web Stories Editor

- Prototyped, developed and launched the WYSIWYG Web Stories Editor (wp.stories.google) as part of Google's critical Storytime efforts.
- ~10k active installs in the first three days after launch.

(July 2020 - Present) Startup <u>Tangi.co</u> by Areal20 (video consumption platform)

- Lead the prototyping, implementation and launch of the Tangi app on iOS and Android as part of the Area 120 internal startup incubator
- Grew Tangi to thousands of content creators and hundreds of thousands of monthly active users leading to a successful acquisition
- ~6 "Spot" bonuses (highest mgmt bonus) + multiple peer bonuses

Offers from Google, Amazon, PRobinhood, Cloudflare & Expo.io

## Software Engineering Intern 😉 Google

May 2018 - August 2018 New York City, NY

Joined Google Docs to work on improving the offline experience. Collaborated with project managers, designers, and engineers to execute and deliver a project. Wrote both core Java server code as well as client-side Javascript code, delivered design documents, rollout and testing plans for the various added features. Received a full-time returning offer as a Superstar intern

Received internship offers from GGoogle and HMicrosoft

### Software Engineering Intern G Google

May 2017 – Aug 2017 Mountain View, CA

Worked as part of Google Search's AMP team to create new media consumption experiences. combining User Interaction Design and development skills to implement and launch core features including video minimization, video controls, tilt-to-pan, fullscreen-on-rotate and more. Participated in and led Agile (Scrum) software development cycle activities including sprint planning, code reviews, and demos

- Shipped code on 2B+ web pages on 900k+ different domains
- Received a "Spot Bonus" as an intern (highest management bonus)

# Solutions Engineer / Graphic Designer 🚳 Lafayette Recreation Services

December 2015 - May 2019 Easton, PA

Designed and managed multiple successful projects and social media campaigns. Engineered a people counting sensor using a Raspberry Pi development board and Computer Vision to count the number of students using the Gym. Designed and implemented the center's app in React Native.

## ITS Web Development Team <a>®</a> Lafayette College

Jan 2016 – Jul 2016 Easton, PA

Designed and implemented web components for the Lafayette.edu site.

Researched accessibility techniques for Wordpress and integration with Moodle.

# Audio-visual speaker-independent speech recognition

Thesis Candidate (Unfinished)

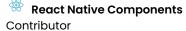
Partial honors thesis thesis proposing a new audio-visual speech recognition model based on a comparative analysis of the various advances in automated lip reading, and integration of an improved lipreading model with an existing audiovisual speech recognition system.

## Automatic Camera Switching For Multi-camera Video Conferencing Setups

Defensively published under <u>TD Commons,</u> (July 08, 2020)

# **Open Source & Side Projects**

Accelerated Mobile Pages
Core Contributor



Project Visio / ThirdEye
Wearable AI for the blind

• Appertu.re

Collaborative Photo Sharing

MirrorOS

Innovative UI for Smart Mirrors

RecSoft

Online App Creation Platform

TurboGrade

Grading Platform for CS Labs

Live People Counter
RaspberryPi & OpenCV Project
CourseChief.com

Class Schedule Generator

Memeboard

Facebook Messenger Extension

1.7k+ contributions on 

Github

## **Online Portfolio**



# Other Experiences (Side Projects)

Lead Engineer/Project Manager 🦠 Appertu.re

September 2017 - July 2019 Hackathon / Side Project

Conceptualized the idea for Appertu.re: a location-based real time collaborative photo sharing app. Led a team of 3 Software Engineers. Designed and prototyped the UI and UX for the application as well as the software architecture. Engineered and implemented the front-end and back-end components using React Native, Express.js, MongoDB, AWS & Next.js.

- Won the AWS track of the PennApps hackathon.
- Won the Lafayette College Business Plan competition.

UI/UX Designer 🚊 GoPeer™

August 2017 - December 2017 Side Project / Unpaid

Designed the GoPeer™ brand (logo, website, promotional material, etc.) before its founding as a successful education technology startup founded by two close friends. Engineered and prototyped the user interface and user-interactions on the main platform.

## Software Engineer / UX Designer Various Projects

2010 - 2015 Freelance / Side-projects

Extensive experience, making creative projects. Managed, designed and executed multiple successful personal projects using Java, C++, Javascript, and Python. Full list of projects on <a href="http://gharbi.me/">http://gharbi.me/</a>

# Leadership & Teaching Experience

Resident Advisor (RA) 
Multiple leadership awards

Teaching Assistant (TA) 🚇

CS150: Data Structures & Algorithms

Computer Science Tutor

Mentored and tutored CS students

Vice President Upsilon Pi Epsilon
Vice President of chapter

President Future Interactions Lab
Founded a hobbyist HCI club and led
projects including a Smart Mirror.

Fellow Dyer Entrepreneurship Center
Public speaking, event management,
leadership conferences and recruiting

Member CEO Collegiate Entrepreneur Conferences & business competitions

### Research Experience

#### Undergraduate Machine Learning Research

Lafayette EXCEL Scholarship

Jun 2016 – Aug 2016 Lafayette College

Used a triplet loss function to fine-tune a Neural Network on recognizing face similarity using TensorFlow (Python). Designed an Amazon Mechanical Turk experiment to obtain crowdsourced training data. Used OpenCV and Dlib for face detection and data preprocessing.

## Intelligent Tutor System for Calculus

Independent Faculty Research

Aug 2016 – Jan 2017 Lafayette College

Designed and built an ITS (Intelligent Tutor System) that uses a novel tree structure to dynamically and autonomously generate drill questions for Calculus and collects data to assess student difficulties. Used Python, Django, Numpy, SymPy and Javascript.

# Volunteering

### Volunteer Teacher Initiative for Malagasy Education

December 2016 - January 2017

Traveled to Madagascar as part of a peer-to-peer mentoring program that aims to prepare Malagasy students for applying to US colleges.