## Jonathan Tseng

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**EDUCATION** Bachelor of Science,

Duke University, Durham, NC Class of 2017 Double Major: Electrical Engineering, Computer Science

High School Diploma, GPA: 4.0

Raleigh Charter High School, Raleigh, NC Class of 2013

RELEVANT Software Design and Implementation (Java)

COURSEWORK Computer Architecture (C. Assembly) Problem Solving in Computer Science Seminar (Java)

Discrete Math for Computer Science (Scheme)

Fundamentals of Electrical and Computer Engineering (Arduino)

Data Structures and Algorithms (Java)

**EXPERIENCE** Biology 202: Genetics and Evolution Android Developer

Duke Biology Department

• Developing android application for eduction in Duke course BIO202: Genetics and Evolution

• Problem generation and solving for biological equations (e.g., Hardy Weinberg, genetic cross mapping, etc.)

• Provides graphing simulation for allele frequencies over time and genetics vocabulary flashcards

Computer Science 230: Discrete Math Teaching Assistant 8/25/2014—12/14/2014

Duke Computer Science Department

Durham, NC

• Grading problem sets and exams

• Holding Office Hours and answering questions on Piazza

• Help preparation and creation of new problem sets

Microsoft Software Development Engineering Intern

Cloud & Enterprise, Windows Azure Storage Redmond, WA • Created Windows Presentation Foundation (WPF) application service for developers to show server tenant

performance data using C# and XAML

• Created WPF application for developers to efficiently edit XAML files through UI interaction

• Interfaced Windows Azure Storage API to upload and download data from the cloud

• Fixed bugs with jobs collecting performance data from Windows Azure tenants

National Institutes of Health Summer Research Intern

6/4/2012—8/3/2012

Bethesda, MD

Top 30

5/12/2014—8/1/2014

Cumulative GPA: 3.948

8/25/2014—present

Durham, NC

Α

Α

A+

A+

NIAID, Lab of Malaria Immunology and Vaccinology

Organized thousands of samples into boxes in different freezers on different sites

 Managed, organized, and tracked incoming and outgoing samples by devising new organization system that better referred people to exactly where specific samples are

Ran Western Blot on malarial antigens for quality assurance of lab antigens

• Gave scientific presentation to lab faculty on summer findings on malarial antigen quality

**PROJECTS** Duke Start-Up Challenge (Fall 2013—Spring 2014)

• Created start up proposal for Health-E: company to promote healthy food decisions through tech

• Created design specs for mobile Health-E app: allow users to scan food barcodes and gleam information about the product (ingredients, health effects, healthy alternatives) to educate and support health decision making

• Selected as top-30 proposal to give presentation at Duke Start-Up Challenge Demo Day 2014

HackPrinceton (Fall 2013), Shuffly

Top 40

• Created Android application to control music playback on any android music player by using hand gestures (tilting the phone along different axes)

• Interfaced Android gyroscope motion sensor to register and simulate media button presses

PennApps (Spring 2014), Conductor

• Created a conductors baton that could control music sound effects like a DJ

• Interfaced accelerometer on the baton to map baton movements to certain DJ affects

• Interfaced proximity sensor to control pitch and volume of music based on proximity of hand to sensor

Implemented through Arduino and simulating button presses in VirtualDJ

**SKILLS** Skills: Java, C#, Python, XAML, Android, Scheme, HTML/CSS, JavaScript, MATLAB, C, Android Studio, Visual Studio, Eclipse, IntelliJ

LANGUAGES Languages: English, Mandarin Chinese, Taiwanese, Japanese