Trung (Rocky) Ngo

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Personal Website | *GitHub* | *LinkedIn* | *HackerRank* | *Quora*

EDUCATIONs

CLARK UNIVERSITY, Worcester, MA   August 2014 – May 2018
Bachelors of Art: Double major in *Computer Science* & *Mathematics* and Concentration in *Computational Science (*Math/CS GPA: 3.5)

HARVARD EXTENSION SCHOOL, Boston, MA   June 2016 – August 2016
Advanced Mobile (iOS) Programming in Swift – Summer

SKILLs

+ *Strengths:* Object-Oriented Design | Full-stack Web Dev | Mobile Dev | Computational Math | Test-driven Dev
+ *Languages*:
- *Proficiency:* Java | Swift | JavaScript | HTML5 (Pug) | CSS3
- *Familiarity:* Python | C | C++ | C# | Matlab | Bash | Go
+ *Development Tools*: XCode | Intellij | Brackets | Eclipse | Unix/Linux | Vim | Visual Studio | UML

+ *Database:* MySQL | NoSQL | PostgreSQL | Hadoop
+ *Web Technologies:* Bootstrap | JQuery | React.js | Node.js | Web Services (REST, XML, HTTP) | Spring | AWS
+ *Frameworks:* iOS [UIKit | WebKit| | NumPy | Matplotlib| Google Map | Foursquare | ASP.NET | OpenCV
+ *Others*: [*Version Control*: Git | Bitbucket], [*Testing*: JUnit, A/B], [*UX Design*: Moqups |Adobe Illustrator, Sketch]

WORK EXPERIENCEs

PaperAirplane, Boston, MA   *Work Experience/ May 17 - October 17*
Software Engineer Intern – iOS & Full-stack Web Development
- Designed and tested iOS prototypes featuring **geo-fencing** in **Swift**, fetching data from **Google Map** & **Foursquare** APIs
- Helped PaperAirplane expand its dating venues in downtown Boston for first-time and returning users by building the web app (preliminary version) for partners to register their venue, create ads and events and access simple data analytics of customers
    + **Front-end**: Designed UI with **HTML5/CSS3, Bootstrap,** and **JQuery**, components with **React.js** with some charting in **D3.js**
    + **Back-end:** Built the web server side in **Node.js**, with the database in **Mongo DB**. Used testing with **Mocha and Chai,** and automated the workflow with tools like **Grunt** and **npm** scripts

Boston University, Boston MA   *Published Research / May 16 – August 16*
Undergraduate Research Assistant/App Programmer
- Implemented features of *image filtering and social media sharing* in **C#** based on **EmguCV** to the assistive desktop app called, **Camera Canvas,** integrated with the mouse-replacement video-input interface, **Camera Mouse,** to help the disabled draw and filter photos
- Published the research work on *Springer* (over 400 downloads so far) and presented it at *HCI International Conference 2017*

Clark University   *Campus Job/ January 16 – Now*
Computer Science/Mathematics Teaching Assistant
- Assist the professor, for the course of **CS**: **Data Structure**, **Automata Theory** & **Math**: **Discrete Mathematics, Multivariate Calculus**, to grade the set of assignments and take-home projects for more than 30 students
- Hold weekly office hour for helping students solve coding assignments and math problems and review sessions for the tests

ADDITIONAL PROJECTs

Harvard Extension School | **iOS app (beta version) – Soccerify**   *Independent / June 16 - August 16*
- Built a user-interface and simple data model for the *iOS app* in **Swift**, called **Soccerify**, the soccer media app to check match results in time and rate/ comment about them with others
- Applied **MVC** design pattern, designed UI storyboard, retrieved data from **Soccerama.pro**, and integrated it with **UIKit, MapKit,** and a **Cocoa Touch** framework (**AFNetworking**)**.**

Clark University |**GMM for a simple Speech Recognizer**   *Independent/ December 16 - December 16*
- Optimized the **Gaussian Mixed Model** (GMM) in **Python** to apply into simple speech recognition tests
- Collected a set of audio files (.wav) to parse them into the feature file (.feat) as input for testing

Clark University | **2D Adventure Game Prototype**   *Group Semester Project/ January 16 - May 16*
- Practiced the agile software development life cycle with other teammates to design the map and characters along with a game engine as well as unit tests for the desktop 2D game written in **Java**, based on **Box2D** and **LibGDX** (game library)

EXTRACURRICULARs/ AWARDs

- *Human Computer Interaction International 2017 Conference* in Vancouver- Presentation Participant
- *2015, 2016, 2017 Putnam Competition* – School Participant
- *Clark University Mathematics Association* - Treasurer

RELATED COURSEWORKs

- *Computer Science*: Algorithm, Analysis of Programming Language, Computer Organization and Assembly, Analysis & Design of Algorithm, Computer Networking, Machine Learning, Operating System & Numerical Analysis, [**currently**]: Distributed System, Theory of Computation, Database System Design

- *MOOCs*: Software Debugging, Software Testing (*Udacity*), Machine Learning (*Coursera*), [**currently**]: Database Design (*Udemy*), AWS & DevOps Essentials Trainings (*CERTS School*)
- *Math*: Linear Algebra, Multivariate Calculus, Probability & Statistics, Stochastic Modeling, Differential Equation

[1] As in *JANUARY 2018*