Tanya Balaraju

Software Developer, Student Leader

Github	tanya
Linkedin	/in/tanya-b
Website	tanya.github.io
Email	tanyabalaraju@gmail.com

Education

Rutgers University > Fall 2014 - Spring 2018
B.S. Computer Science, minor Cognitive Science
Honors Program > GPA: **3.711**

Coursework > Data Structures, Algorithms, Databases, Computer Architecture, Systems Programming, Mobile Robotics, Distributed Systems, Artificial Intelligence, Internet Services, Cryptography, Brain Inspired Computing (SNNs)

Leadership/Experience

pedul.com > Summer 2017

PeduL > Backend Web Developer

> Work with team to design sitemap, UX flows, and ER diagrams for a startup building a higher education crowdfunding platform

> Implement backend flows supporting payments, user auth, OAuth, and email verification in **Python/Flask** using MongoDB

> Deploy on **Apache** HTTP server on **Ubuntu** Linux cloud host; integrate front end using Jinja2; configure unit and load testing

cs.rutgers.edu/resources/instructional-lab > Fall 2017

Department of Computer Science > iLab Assistant

> Administrate Rutgers computing resource cluster running CentOS 7 for **thousands** of undergrads, graduates, and faculty

> Tutor undergraduates in computer science coursework, particularly providing help with Data Structures & Algorithms

usacs.rutgers.edu > April 2015 - Present

Rutgers USACS > Community Director

> Organize events to **reform** and **expand** CS student org

> Established social media campaigns that increased online exposure by over **100%**, from **<500 unique views to 1000+**

> Launched initiative to make Rutgers CS more inclusive of underrepresented groups, particularly **women in tech**

hackru.org > Fall 2017

HackRU > Director, Volunteers / Hacker Experience

> Recruit, guide, and lead team of **~50 volunteers** for HackRU

> Ensure smooth experience for **several hundred developers**

> Contact experienced technologists to serve as mentors to attendees during the event, **encouraging project completion**

hackru.org > Spring 2015 - Fall 2017

HackRU > Organizer, Day-Of and Hacker Experience

> Worked with multiple teams to organize three semesters of Rutgers hackathons, hosting **~1000 devs** over **30 hours**

> Planned and hosted mini-events with **~50 attendees each**

sashonors.rutgers.edu > Spring 2015 - Fall 2015

SAS Honors Program > Ambassador & CS Tutor

> Guided students through Data Structures and Intro to CS

> Represented CS major to hundreds of SAS honors freshmen

Skills

Java, Python, C, Swift/iOS, C#, HTML/CSS/JS
Bash Scripting, Git VCS, Flask, Unity, MVC, Apache
MySQL, NoSQL, MongoDB, Linux (Redhat, Debian)

Awards

hackNY Fellowship: Summer 2018
Best Hack Design: hackNY Spring 2016
Best Mobile App: CS336 Databases Fall 2016
Scholarships: Henry Rutgers, Rutgers Trustee
First-Year Leadership Fellow: Rutgers, Spring '15
Dean's List: Fall '14, Spring '15, Spring '16, Fall '16, Spring '17

Projects

github.com/tanya/Hawk > Fall 2016

Hawk: Crowdsourced Safety

> Built mobile app to inform users of local crime/safety information and enable posting to location-based forum

> Built **Python/Flask** backend that used SQLAlchemy to interact with **MySQL** database on Amazon Web Services

> Applied MVC to create end-to-end iOS app that included data persistence, networking, and location services in Swift

> Used Alamofire to connect HTTP requests to REST API with user interface to create a smooth user experience

github.com/tanya/YUGE > Spring 2016

Yuge: Tetris / Candy Crush Mobile Game

> Implemented design in Swift, won **Best Hack Design**

> Collaborated with two teammates at hackNY to blend external mechanics into politically-themed iOS game

> Designed an elegant 8-bit style UI using various tools

github.com/tanya/TSP-Solver > Spring 2017

Traveling Salesman Solver

> Modified classic implementation of A* search algorithm to optimize its space efficiency from **quadratic to linear**

> Implemented Simulated Annealing and A* search algo variants in Java to solve the Traveling Salesman Problem

> Programmatically analyzed time and space efficiencies of both algorithms to evaluate optimality/completeness

github.com/tanya/Multithreaded-Bank > Fall 2015

Multithreaded Bank Server

> Implemented low-level solution to classic multithreaded producer-consumer problem in **C on UNIX-based system**

> Built client-side scripts equipped with dynamically-sized buffers and debugged server-side thread management

> Utilized mutual exclusion locks and thread coordination to protect access to critical code sections / avoid deadlock