Quoc Thai Nguyen Truong

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EDUCATION

UC Berkeley – B.S. Electrical Engineering and Computer Sciences 2015

Course Highlights: Structure & Interpretation of Computer Programs, Great Ideas in Computer Architecture (Machine Structures), Data Structures and Programming Methodology, Discrete Mathematics and Probability Theory, Artificial Intelligence, Efficient Algorithms and Intractable Problems, Computer Security, Software Engineering Microelectronic Circuits, Structure and Interpretation of Systems and Signals.

App Academy

Intensive web development training program with < 3% acceptance rate

- Emphasizes pair programming, TDD, REST, OOP, and best practices.

PROJECTS

Guidance *(Rails, React/Flex)* | live | github

A web application allowing users to show off their project inspired by Instructables.

- Secured authentication by hashing and salting passwords with **BCrypt** Ruby gem.
- Integrated **Quill.js** library to render powerful text editor for text-formatting including syntax/code and images.
- Uploaded images by using Paperclip Ruby gem and hosting them on AWS.
- Classify guides into tags and categories.

Guardian-Angel*(Javascript, React Native, GraphQL, MongoDB, Node)* | live | github

- Collaborated with **4 students** to build the application that will allow people to network with others to help someone in need. By generating a need, a user will become a "**Guardian**" and be able to take in applicant "**Angels**". Alongside, a Guardian may also be an Angel themselves and decide to help someone in need.
- The focus of the app will rely heavily on users own vetting process to decide if they will want to accept the help, and we will provide location based tools to help. We feel that by creating an easy user experience to organically explore how to help or get someone some help, the world can be a little better than when we started.
- Use **GraphQl** to setup the Schema, and request types Mutation and query as an entry point into the database, so that we can send the data that we need to the front end.
- Use **JWT** for user authentication (login, logout, signup, and giving session token) and secure the API.

Survival Ants *(Javascript, HTML5 Canvas, CSS, P5 JS)* | live | github

- Survival Ants is an evolutionary simulation where evolving streeing agents to effectively eat food and avoid poison. The concept is based on Steering Behaviors For Autonomous Characters by Craig Reynolds, and its implementation is part of the genetic algorithms and intelligence learning.

Computer Security *(Stack Buffer Overflow, SQL Injection, Cross-Site Scripting (XSS)*

- Looked for any potential vulnerabilities, create an exploit using the found bugs, and write the shell scripts to gain full VM access.
- Performed a SQL injection attack to infiltrate an online database of informants and retrieve the password of the particular informant that corresponds to the user ID.
- Executed code as an administrator in order to attack a website by successfully completing an XSS attack through a user profile.

PacMan with AI *(Machine Learning)*
A PacMan game
- Worked in a group of two students on a large project using Python.
- Built a PACMAN agent using many search algorithms in Uninformed, Heuristic Search, Local Search, Adversarial Search.
- Taught PACMAN sources improving knowledge using: Logical Planning, Reinforcement, Bayes' Nets, Q-learning.

SKILLS

Ruby JavaScript Java Python JQuery React.js Flux
Ruby on Rails HTML/CSS SQL Git AWS Heroku
Node JS **Data Structure** **Algorithms** **Debugging**
Linux/Unix Testing MIPS Machine Learning Mlab

EXPERIENCE

Student Brother – Dominican Formation May 2015 – April 2017
Trained to become a priest, studying philosophy, theology, and preaching, and involved in ministries.

Web Developer Feb 2015 – May 2015
A platform that allows customers, typically purchasers of an e-textbook, to redeem a bundle of promo codes from vendor partner.
- Collaborated with 6 software engineering students to design & build "Redeemiby" site for Armando Fox, Professor, Software Engineer, UC Berkeley.
- Project won "**Most Likely to Turn into a Tech Startup.**"
- Proficiency in HTML, CSS, JavaScript, Ruby On Rails, Photoshop, Heroku, Github to ensure high quality functionality helping users navigate services efficiently.

CSRobotics Club 2011 – 2013
- President of CSRobotics Club at West Valley College. Our goal is to build a network of people who have common interest by having robotic projects and programming competitions. My advisor is Professor, Steve Blasberg.
- Fall 2011: "**Pumpkin Robot**" was controlled by a cell phone and it was for school **Halloween fundraising**.
- Spring 2012: "**Spelling Robot**" was programed to write letters on the board.

Tutor at West Valley College 2010 – 2013
- Tutored students in Computer Science, Math, Physics, and Engineering subjects at West Valley College

HONORS AND AWARDS

- UC Berkeley Scholarship for Undergraduate Students (UC Berkeley, August 2013)
- Buick Achievers Scholarship (2013)
- Hazel Reed Baumeister Scholarship (2013)
- Contribution to EOPS students (2012)
- Kumin Scholar Scholarship for 4 years (2012)
- Solo music competition. Piano competition for Westmont High school at Campbell Heritage Theater (2009)