

Karl Coelho
1970 Nathaniel Rochester Hall, Rochester, NY 14623
Phone: 917-780-0154; Email: kac9868@rit.edu

EDUCATION

Rochester Institute of Technology

Rochester, NY

BS, Computer Science (Honors, Dean's List)

Anticipated Graduation - June 2020

Courses: Introduction to Computer Science I (*Data Structures & Algorithms*), *Introduction to CS II (OO-based programming)*

Introduction to Software Engineering, Computational Theory, Concepts of Computer Systems (Assembly)

HONORS AND AWARDS

- Microsoft College Coding Competition – 1st Place (Fall 2017)
- RIT's Official Hackathon BrickHack – Best Video Game (Spring 2017)
- Microsoft Imagine Cup Programming Teenagers Competition – International Winner (Spring 2014)

WORK EXPERIENCE

Microsoft

Redmond, WA

Software Engineering Intern

May 2018 – August 2018

- Worked on the Build & Infrastructure team within M365 Core in the Experiences & Devices Group
- Leveraged engineering signals like override compliance, frequent code review signoffs and high code coverage to generate ratings for engineers' coding practices on their individual pull requests
- Used Microsoft's internal big data service for pulling data to show ratings of engineers' previous pull requests
- Developed a dashboard using React.js components for visualize ratings and long term trend graphs
- Deployed the React.js application as a VSTS (Visual Studio Team Services) marketplace extension for managers across the company to benchmark their engineers' code quality
- Used various internal Microsoft technologies and popular development tools like .NET Core, React.js and TypeScript

Savana

Philadelphia, PA

Software Engineering Intern

June 2017 - August 2017

- Designed and implemented performance/load testing suite for Savana nGage Platform API to test against thousands of concurrent API requests
- Incorporated Swagger developer tooling architecture for dynamic documentation generation and plugging the API into multiple third party services
- Refactored nGage Platform API external services for connecting into other developer platforms and following industry standards
- Developed factory patterns for entire API unit testing suite for entity models across Savana's product lines
- Worked in an agile (Scrum) software development environment with various other Microsoft technologies: ASP.NET, Windows Server, Windows SQL Server

PERSONAL PROJECTS

ExciteDubai

Web application -- a social network for students in Dubai, UAE

- Used Ruby on Rails web application framework for implementing MVC structure
- Utilized PostgreSQL database for storage of user registration data and pins
- Integrated AWS S3 for storing uploaded images by users
- Deployed application on Heroku for convenient management of web server and database instances

Startup Validator

Web application -- a company name verifier for .com domains, Twitter handles and Facebook Pages

- Used client-side JavaScript for input validation as well as loading JSON data from backend API
- Built backend querying API with Sinatra (Ruby web framework) and Express.js (Node.js web framework)
- Implemented the Facebook SDK and Twitter SDK for user identity verification
- Deployed application on AWS EC2 in order to scale infrastructure easily with large traffic

Sinatra Boilerplate - github.com/karlcoelho/sinatra-boilerplate

An opinionated boilerplate project / starter kit for working with Sinatra web applications

- Integrated frontend technologies like jQuery and Twitter Bootstrap
- Utilized backend technologies like PostgreSQL
- Constructed project for modular architecture (routing, database, authentication)
- Received 80+ stars on Github from popularity of the project in open source community