Dennis Kats

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Education

Northeastern University, *Boston, MA* (*Sept. 2018 – Present*)
Khoury College of Computer Sciences, Honors Program
Candidate for a Bachelor of Science degree in Computer Science and Mathematics (*Expected May 2022*)

Relevant Coursework Fundamentals of Computer Science 1 & 2, Discrete Structures, Logic and Computation, Object-Oriented Design, Computer Systems, Web Development, Algorithms and Data Structures, Calculus III, Linear Algebra, Differential Equations, Probability and Statistics

Honors GPA: 3.73/4.0, Dean's List

Technical Skills

Programming Languages (Proficient): Java, C, C#, HTML, CSS, JavaScript/Typescript, React, Redux, Racket
(Familiar): Bootstrap, jQuery, Express.js, ASP.NET Core, Python, Swift, Spring Boot, SQL, Bash

Operating Systems Microsoft Windows, macOS, iOS, Ubuntu

Software Eclipse, IntelliJ IDEA, Visual Studio, Visual Studio Code, Vim, Git, Adobe Photoshop, Adobe XD, Adobe InDesign, Adobe Premiere Pro, Adobe Dreamweaver, LaTeX

Work Experience

Web Developer*, Intech 21, Inc., New York, NY* (*Jun. 2020 – Present*)
- Rewrote several legacy Java applets in JavaScript and ASP.NET while maintaining backward compatibility with IE11 using Babel polyfills and Webpack.
- Developed scripts for dynamically creating custom web components for retrieving, displaying, and updating SQL Server data, while using shadow DOMs for greater modularity and encapsulation.
- Used the Canvas API and MVC architecture to create an interactive, online simulator for remote terminal devices.

Software Engineer Co-op*, Carbonite, Inc., Boston, MA* (*Jan. 2020 – Apr. 2020*)
- Used React, Redux, and Jest in Typescript to implement and test localization support for an online service.
- Developed a Visual Studio Code extension in Typescript for managing and reusing project templates.
- Used ASP.NET Core and NUnit in C# to write RESTful API tests and develop an API Test Logging System.

Course Assistant for Fundamentals of Computer Science I*, Northeastern University, Boston, MA* (*Sept. 2019 – Dec. 2019*)
- Graded homework assignments, reading up to 5000 lines of code per week, and provided feedback to students.
- Held office hours and lab sessions to assist students with debugging code and reviewing core concepts.
- Attended weekly staff meetings and collaborated with the teaching team to improve the course curriculum.

Teaching Assistant*, The Scholars' Academy High School, Rockaway Park, NY* (*Oct. 2017 - May 2018*)
- Developed comprehensive lesson plans and projects, and graded assignments for Advanced Placement (AP) Physics C: Mechanics and AP Computer Science A classes. Created answer keys to over 10 exams and over 40 problem sets.

Personal Projects

AlgeDraw App for Fitbit (*Aug. 2019 – Jan 2020*)
- Developed a twelve-function calculator app using the Fitbit SDK (JavaScript), CSS, and SVG for the Fitbit smartwatch.
- Features support for handwritten digit recognition using a custom-designed and memory-optimized nearest neighbor linear search algorithm, and includes links to a support website with visual app tutorials.
- Also supports handwritten gestures for loading commonly used mathematical constants and switching between radians and degrees mode for trigonometric functions, and a button for viewing calculation history.

Mario Watch-face for Fitbit (*Jul. 2019 – Aug. 2019*)
- Developed a watch-face using the Fitbit SDK, CSS, and SVG to show an animated appreciation for Nintendo's Mario.
- Implemented a "Have your phone?" reminder using socket events to detect interruptions in the watch-phone Bluetooth connection, which can be toggled or delayed in the watch-face settings.
- Also implemented a day/night cycle using real-time geographic coordinates of the phone's location and an open-source library to calculate the times for sunset and sunrise.

Vortecs Desktop and Mobile (*Jan. 2019 – May 2019*)
- Using Java Swing for desktop and Swift for iOS, co-designed and pair programmed a learning tool for first-time linear algebra students to help visualize linear transformations.
- Implemented multiple visualization features such as playback and camera controls, an animation speed slider, an infinite grid, context menus, and more.