Hamza Sohail Bachelor of Computer Science, 2nd Year

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SKILLS

Languages: Python, Java, Node.js, C/C++, HTML/CSS/JavaScript
Frameworks: Flask, Express, Angular, React, Bootstrap
Tools: Git, Docker, *nix, Databases, Jira, Slack

WORK EXPERIENCE

CHORUS Lab, Carleton University | May 2020 – Aug 2020
Technical Research Intern
• Developed a series of web-based games to inform pre-teens about digital literacy concepts
• Worked in an agile environment to implement the games using Angular and the G-Develop game engine
• Developed a web-based dashboard to manage game assets without having to touch any code
• Built an API that served the game assets from a backend database to allow for rapid prototyping and testing

Work-Study, Carleton University | Sep 2019 – Apr 2020
Web Developer
h4sohail.github.io/biochem_lab_simulator
• Gathered lab data and used it to design and implement simulations that were representative of the lab activity
• Worked both as a designer and developer to build the initial version of the app with five virtual lab experiments
• Used Angular to write the codebase, documented it and completed feature requests over an 8-month period
• The app is currently being updated by other students and will be used to replace physical labs for the Fall term
• This in-house solution to virtual labs saved the department $50 per student which was the cost of 3rd party app

PROJECTS

Feedback Analyzer, CuHacking 2020 | January 2020
• Created an app to track tweets on an organizations' support account to help developers find technical issues
• Got the tweets from the Twitter API and stored them in a MySQL database
• Categorized the tweets as technical or non-technical by matching them against a list of keywords
• Used natural language processing by training a model on 7000 tweets to perform sentiment analysis
• Scored the tweets to give developers at the organization alerts on degraded performance or broken features

Gene Analyzer, Carleton University | Oct 2019 – Dec 2019
• Built a tool to analyze gene and protein interaction data for a PhD student and his research into cancer
• Worked with data science libraries such as Pandas, NumPy and Matplotlib to consume data from excel files
• Implemented an optimized searching algorithm to find patterns in the protein interaction data
• Developed a suite of web-scrappers to get data from online databases and used BeautifulSoup to parse it

VOLUNTEER EXPERIENCE

Carleton Blueprint | Apr 2020 – Present
Vice President – Technology
cublueprint.org
• Leading a team of student developers to develop pro-bono apps for non-profit organizations
• Co-developed the clubs' website using HTML/CSS/JS and the Bootstrap framework
• Interviewed students for technical positions to work on our 8-month project starting Fall 2020
• Gathered project requirements from a non-profit, helped design the solution and build the system architecture
• Performing DevOps duties such as setting up a development server with a PostgreSQL database, Node.js and Nginx

EDUCATION & AWARDS

School: Carleton University
Program: *Bachelor of Computer Science - Software Engineering*
Overall GPA: *11.5 out of 12*
Achievements: I-CUREUS Research award, Dean's Research Internship award, Dean's Honor List award