Sion Avakian

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Education

University of California, Irvine — Irvine, CA

Bachelor of Science in Computer Science, GPA: 3.5 — *Graduated June 2021*

- Relevant Coursework: Algorithms and Data Structures, Design and Analysis of Algorithms, Intro to Artificial Intelligence, Machine Learning/Data Mining, AI in Biology and Medicine, Projects in AI, Graph Algorithms, Computational Geometry

Experience

Software Engineer — July 2021 – May 2022

Capgemini — *Los Angeles, CA*

* Worked on developing and maintaining an internal communications hub system using Java and React JS, designed to move data between multiple company functions.
* Contributed to various stages of the project's SDLC, developing internal tools using object oriented programs and scripts in Python, C#, and Java to reduce manual testing efforts and increase code quality.
* Collaborated with senior software engineers in Agile teams to develop high quality code.

Undergraduate Researcher — July 2020 – September 2020

UC Irvine Institute for Money, Technology, and Financial Inclusion — *Irvine, CA*

* Utilized various web scraping tools/techniques such as Selenium, Scrappy, Beautiful Soup, and Pandas to gather and analyze relevant data under the supervision of UC Irvine Social Sciences Dean, Bill Maurer.
* Built and maintained twitter bots using Python and Tweepy to serve as test subjects for how they contribute to the spread of dis- and misinformation.
* Co-authored a blog post, summarizing the modules and toolkits developed by the team and distributed to over 100 universities, governing associations, centers, and institutes. Published at Penn State Social Science Research Institute and The Consortium of Social Science Associations (COSSA).

Undergraduate Researcher — September 2019 – June 2020

National Science Foundation - UC Irvine Informatics and Data Science Lab — *Irvine, CA*

* Developed a data visualization dashboard in Python to highlight key findings and statistics about selected community organizations.
* Presented findings to faculty on how community organizations use data to champion their cause.
* Co-authored a scholarly publication regarding ethics in computer science curricula and undergraduate experiences.

Co-Founder and Software Engineer — January 2019 – May 2019

Phoenix Robotics

* Utilized Arduino, Python, and Raspberry Pi to build a public service humanoid robot.
* Raised and managed north of 20,000 Dollars for the project.
* Organized and lead an agile work environment for more than 15 team members.

Full Stack Software Engineer Intern — June 2018 – September 2018

Youth Policy Institute — *Los Angeles, CA*

* Sustained and improved organization's website working directly with the product manager and lead developer, resulting in a 15% increase in the number of fellows.
* Produced and maintained a follow-up system for current and past fellows using MERN stack.
* Adopted MongoDB for data storage.

Projects/Extracurricular

Self-Driving Car Engineer Nanodegree Program — September 2022 – Present

Udacity

RSNA Pneumonia Detection — April 2021 – June 2021

UC Irvine

* Used Python, NumPy, PyTorch, and Sklearn to detect a visual signal for pneumonia in medical images.
* Utilized a large dataset of over 30,000 DICOM images.
* Accomplished over 85% validation accuracy on Kaggle's competition data.

COVID-19 mRNA Vaccine Degradation Prediction — October 2020 – December 2020

UC Irvine

* Used Python, NumPy, Pandas, TensorFlow, Keras, and Scikit-learn to predict RNA molecules' likely degradation rates.
* Achieved maximal time efficiency with a combination of fast algorithms and quality hardware.
* Successfully completed the Kaggle competition with 80% prediction accuracy.

Skills

Programming: Python, C#, C++, Swift, Selenium, SQL, HTML/CSS, PyTorch, OpenCV, Pandas, NumPy
Tools: Xcode, Visual Studio, Jupyter Notebook, Eclipse, Agile frameworks
Languages: English, Armenian, Farsi (Persian)