Amina Shikhalieva

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Education

Cornell University **2018 – 2022**

Bachelor of Science in Computer Science , GPA 3.2

Skills

Languages/Technologies: *(proficient:)* Java, Python, Git, *(familiar:)* React, Hadoop, SQL, PHP, HTML/CSS, AWS, Linux (WSL), Docker
Practices: Agile/Scrum, Unit Testing (Python, Java, React), VCS, Data Analysis and Visualization, Statistical Inference

Relevant Coursework

Machine Learning, Computer Vision, Cryptography, Computational Mathematics, Natural Language Processing, Analysis of Algorithms, Data Science, Foundations of AI, Discrete Structures, Statistics, Linear Algebra, Object Oriented Programming and Data Structures, Functional Programming, Systems Organization and Programming, Operating Systems, Web Design and Programming, Hadoop (indp.)

Experience

Teaching Assistant for CS 4780: Machine Learning for Intelligent Systems, Cornell University **Fall '21**

- Held weekly office hours, explained topics such as SVMs, linear and logistic regression, neural nets, kernels, and boosting.
- Graded homework assignments and exams, assisted in course facilitation, and attend weekly TA meetings.

Software Engineering Intern, J.P. Morgan & Chase Co. **Summer '21**

- Engineered a web application for assessing health and metrics of AI/ML platform tools from design to deployment with a combination of SDLC and Agile. App is expected to increase Site Reliability Engineer productivity levels by at least 20% .
- Led frontend development of the app, utilizing Cloud based tools such as AWS, as well as Jira, Bitbucket, and Jenkins for project organization and management.
- Took initiative by pushing design changes such as improved site navigation and organization, inclusion of data visualization tools, and revamped app logo, while tying UI seamlessly with backend for optimal end user experience.
- Collaborated with other interns and full-time members from various teams to learn best practices regarding UI/UX, API design, database management, and application security.

Teaching Assistant for CS 2300: Intermediate Web Design and Programming, Cornell University **Spring '21, '22**

- Lead weekly class discussions, teach topics such as SQL database querying, server-side PHP programming, and design/usability.
- Grade projects, contribute to course planning, and attend weekly TA meetings.

Chemical Engineering Research, Louisiana State University **Summer '17**

- Assisted operations in BASF Lab involving utilizing Au nanoparticle photodeposition to disinfect drinking water under Dr. McPeak.

Projects

Using Incremental SVD to Predict Wind Speeds (source)
Explored Fast Approximate Subspace Tracking (FAST) algorithm using the incremental SVD to forecast changes in wind speed in a particular location, given prior data about the local weather conditions.

Student Opinions on Courses in Relation with Piazza (source)
Utilized statistical inference methods such as multivariate linear regression, k-means clustering, and p-value hypothesis testing to explore the relationship between student experiences in courses and online engagement to improve student experiences in online learning. Acquired data through web scraping with Beautiful Soup Python package and processed with data analysis packages such as SciPy, NumPy, Pandas, Scikit-learn, and Seaborn.

Sewage System Ring Finder (source)
Implementation of Dijkstra's shortest path algorithm using appropriate data structures in Java to find a target in a maze and maximize rewards collected along the way.

Snek2.0 (source)
Implementation of interactive Snake game using functional programming in OCaml and terminal-based user interface.

Snek (source)
Interactive imitation of classic Snake game, using Tkinter for GUI.

Taekwondo Drill Generators (source)
Python-based GUI interface that randomly generates and displays enumerated drills to practice taekwondo.