Seyed Hooman Mostafavi

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Research Interests

- Machine Learning
- Artificial Intelligence
- Health Informatics
- Internet Measurements and Analysis
- Software Engineering

Education

M.S. in Computer Science | University of Oregon | GPA: **3.88** / 4 | 2016 - 2018

- A Longitudinal Assessment of Website Complexity | M.S. Thesis | Advisor: Reza Rejaie | bit.ly/uothesis
  - Implemented a web crawler for HAR (HTTP Archive) file collection using Selenium WebDriver in Java
  - Analyzed various complexity metrics of 2000 websites across different categories and popularity levels
  - Predicted the page load times using Regression models such as Linear Regression, Ridge and Lasso Regression, and Random Forest Regressor with an R-squared of 77% in Python
- Selected Courses:
  - Intro to Artificial Intelligence: A
  - Machine Leaning: A-
  - Data Mining: A
  - Data Science: A
  - Probabilistic Methods in AI: A-

B.S. in Computer Software Engineering | University of Tehran | GPA: **17** / 20 | 2011 - 2016

- An Online Expert System for Detecting Autism in Children | B.S. Thesis | Advisor: Hadi Moradi
  - Implemented Random Forest classification algorithm in Python with an F1 score of 95% to predict the probability of autism in children using the parents' answers to an online questionnaire
  - Designed and developed a website in Drupal which enabled users to fill out an online questionnaire, receive feedback, and get in touch with autism institutions for further diagnosis and treatment
- Selected Courses:
  - Internet Engineering: 19.5/20
  - Software Engineering: 19.06/20
  - Programming Languages Design: 19/20
  - Engineering Probability & Statistics: 18.8/20

Technical Skills

Programming Languages

Proficient: JavaScript, C#, HTML, CSS, SASS, SQL

Prior Experience: Python, Java, PHP, UML, C++, C, Ruby

Frameworks and Tools

Development: .NET, AngularJS, React, Redux, Apollo, Webpack, Node.js, jQuery, Drupal

Testing: Jasmine, Jest, NUnit, Enzyme, Selenium, Cucumber, Nightwatch

Data Analysis and Visualization

Scikit-learn, pandas, NumPy, Matplotlib

Other

REST, GraphQL, Microsoft SQL Sever, PostgreSQL, MySQL, Object-Oriented Programming, Bootstrap, Git, Jira

Work Experience

Software Engineer | Amobee | Sept 2019 - Present

- Improve the backend REST API by designing and developing new services
- Optimize the application's performance by enhancing the UI, API services, and database queries and stored procedures
- Extend the application's functionality by implementing new frontend features
- Manage the design, development, testing, and delivery of new features by leading small teams of developers
- Close collaboration with other engineers and product managers to identify and fix various frontend and backend issues
- Ensure high code quality through code reviews and writing unit and integration tests
- Maintain a library of reusable frontend components and backend services with code documentation
- Assist in hiring new software engineers by conducting interviews and reviewing candidates' coding projects
- Use C#, .NET, NUnit, Microsoft SQL Server, AngularJS, SASS, HTML, Jasmine, Git, Jira

Associate Software Engineer | First Foundry | Nov 2018 - Sept 2019

- Enhanced the UI/UX of the application by implementing new features and developing efficient and user-friendly interfaces
- Ensured high code quality through code reviews and writing unit and integration tests
- Collaborated closely with other team members in an Agile environment using Scrum methodology and a CI/CD workflow
- Contributed to the alpha and beta releases of the product by taking ownership of frontend development and QA tasks
- Wrote user stories, prepared test plans, and performed backend, API, and end-to-end testing
- Used React, Apollo, GraphQL, Redux, Jest, Enzyme, PostgreSQL, Cucumber (Gherkin), Nightwatch, Git, Jira

Research Assistant Intern | Oregon Network Research Group (ONRG) | Oct 2018 - Nov 2018

- Collected and processed the information of the most followed users on Twitter using the Twitter REST API
- Improved the usability of the ONRG website by adding new pages and styling the content
- Used Requests and Twython libraries in Python, MySQL, GitLab, HTML, CSS

Web Administrator and Data Manager | University of Oregon Graduate School | June 2017 - June 2018

- Increased website robustness and security by maintaining existing programs and SQL queries, adding, editing, and styling contents, installing and updating modules, and analyzing the logs on the servers
- Improved students' and faculty members' satisfaction by providing straightforward and timely technical support
- Used Drupal, PHP, C#, .NET, HTML, CSS, JavaScript, Microsoft SQL Server, Windows Server, IIS, Git

Graduate Teaching Assistant | University of Oregon | Sept 2016 - June 2017

- Instructed lab sessions and assisted up to 60 students with assignments and projects
- Courses:
  - Networking Fundamentals | Dave Wilkins | Spring 2017
  - Web Applications Development II | Phil Colbert | Winter 2017
  - Database Systems | Phil Colbert | Fall 2016

Teaching Assistant | University of Tehran | Sept 2013 - Dec 2015

- Created and graded quizzes and assignments
- Led discussion sessions and held office hours to help students with assignments and projects
- Mentored and supervised junior teaching assistants
- Courses:
  - Database Design | Azadeh Shakery | Fall 2015 - Spring 2015 - Fall 2014
  - Artificial Intelligence | Hadi Moradi | Fall 2015
  - Human-Computer Interaction | Masoud Rahgozar | Fall 2015
  - Internet Engineering | Hosein Shafiei | Spring 2015
  - Automata and Language Theory | Kazim Fouladi | Spring 2015 - Spring 2014 - Fall 2013
  - Introduction to Computing Systems and Programming | Hadi Moradi | Fall 2014

Selected Projects

Spotify Explorer | bit.ly/spotifyexp | Winter 2018

- Built a web application with Meteor (React and Node.js) and used the Spotify RESTful Web API in order to provide users with different information about their favorite artists as well as charts for comparing related artists

Sentiment Analysis on Product and Movie Reviews | Data Mining Course | bit.ly/uosentiment | Spring 2017

- Applied several classification techniques such as SVM, Naive Bayes, and Logistic Regression to two different datasets including more than 50K product and movie reviews and achieved an F1 score of 87% in Python

Kaggle's Titanic Competition | Machine Leaning Course | bit.ly/uotitanic | Winter 2017

- Performed feature engineering on Kaggle's Titanic dataset to extract the most important features and applied different classification techniques such as XGBoost, SVM, Decision Tree, and Random Forest in Python
- Ranked among the top 8% of participants by achieving a model accuracy of 80%

Languages

English: Full Professional Proficiency

- IELTS General Training: **8.5** (Reading 9.0, Listening: 8.5, Speaking: 9.0, Writing: 7.5) | 2020
- IELTS Academic: **7.5** (Reading 7.5, Listening: 9.0, Speaking: 7.0, Writing: 7.0) | 2016
- TOEFL iBT: **104** (Reading: 27, Listening: 28, Speaking: 23, Writing: 26) | 2015
- Graduate Record Examination (GRE)
  - Quantitative Reasoning: **168**, Verbal Reasoning: **149**, Analytical Writing: **3.5** | 2015 (still reportable)

Persian: Native

Honors and Awards

Nationwide University Entrance Exam (Konkur) | Iran | 2011

- Ranked 635th among more than 250,000 participants (i.e., top 0.25%)