Anthony Elkommos Youssef

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Dynamic and results-driven Computer Science graduate with a passion for shaping the future of Artificial Intelligence. Possesses a strong foundation in software engineering design patterns accompanied with an expertise in various frameworks (.NET, Angular, React, Spring, Flask) to design and deploy innovative industry solutions. Influenced by a data-focused career and an educational foundation focused on well-documented, tested, and abstracted software, in addition to statistical modeling, web crawling, and data mining skills. Showcasing success in building integrations of AWS S3 AI/ML models, predictive models, web scraping, and regression models. Eager to advance the field of machine learning through dynamic full-stack development skills.

Skills
- **Programming languages:**
  - **Expert:** Java, Python, SQL, Typescript, Angular, C#, React.js, Node.js, Nest.js, R, HTML, CSS, JavaScript, XML
  - **Familiar:** C, C++, Assembly (x86 & MIPS), Verilog, PHP, Scala, MATLAB
- **Languages:** French (was part of the e-board at Northeastern's Francophone Club), Arabic

Experience

Qamous Web App
Project Leader

NY
January 2023 – Present

- Engineered using ReactJS, TypeScript, NestJS, Sass, and MySQL, delivering a staggering 91 Lighthouse performance score
- Designed and incorporated a secure authentication strategy with bcrypt, Express, and Passport.js to safeguard user credentials
- Implemented RESTful API endpoints and integrated React Query for seamless front-to-back data communication
- Rigorously tested using Jest to ensure stability, performance, and security, mitigating potential issues and vulnerabilities
- Scraped dialectic language data using Python and applied i18n internationalization to create an accessible and robust dataset

eClinical Solutions
Full Stack Software Engineer (AI/ML Team)

New York, NY
December 2022 - September 2023

- Integrated and deployed AWS S3 AI/ML models, performed SQL migrations, and optimized query performance by 10%
- Applied OOP principles and .NET front-end development expertise to resolve over 15 complex bugs within tight deadlines using Angular and TypeScript, reducing overall system downtime and enhancing user experience
- Designed and implemented over 20 new features based on market research and collaborated in an Agile Scrum framework
- Developed and maintained backend APIs, executed software restructuring, and drove implementation of key features using C#

Columbia University
Application Systems Developer (Part Time)

New York, NY
June 2022 - December 2022

- Performance-tuned the Directory of Classes system and developed a new system, decreasing update runtime by 83% using C
- Tested the performance and reliability of the new system using python and bash, contributing to the system's data accuracy
- Prepared UNIX shell scripts for end-to-end testing of applications, ensuring system stability for over 4,000 students and staff

Wayfair
People Analytics Co-op

Boston, MA
December 2021 - June 2022

- Selected as Co-op Captain: created and facilitated events for hundreds of co-ops fostering engagement and community-building
- Generated complex analytics SQL queries for Google BigQuery and DataStudio to answer stakeholders and created query writing & optimization resources, allowing less technical employees to dedicate over 25% more time towards client meetings
- Automated various team responsibilities including the processing time reduction for a regular daily operation by 68% using BigQuery and eliminating a 16 hr/month data-extraction task & a 6.25 hr/month employee data cleanup task using Python
- Presented data analyses and insights to leadership and identified enhancements for recruitment and candidate experience
- Programmed a Slack chatbot saving employees valuable hours finding time-sensitive resources

Education

Northeastern University
B.S. Computer Science with a concentration in Artificial Intelligence

September 2019 - August 2022

- **Basketball Point Prediction project:** parsed and cleaned data from sportsdata.io to be used for linear regression, ridge regression, and neural nets and compared the prediction accuracies
- **Stonkorithm project:** implemented a 3-layer Sequential model with Keras & TensorFlow to predict stock prices using market data and sentiment analysis on Reddit & Twitter
- **Dean's List Award** based on a final GPA of over 3
- **Resident Assistant:** fostered relationship development among over 100 students and planned staff meetings
- **Relevant Coursework:** *IS4200* – web indexing, crawling, and implementing an Elasticsearch-based search engine; *CS4100* – deploying Convolutional Neural Network (CNN), Recurrent Neural Network (RNN), and Long Short-Term Memory (LSTM) models using PyTorch and Scikit-Learn; *DS4400* – regression, classification, decision trees, hypothesis testing, Naïve Bayes, K-means clustering; *CS4500* – Git, JSON, Test-Driven Development, unit testing, GUI testing, pair programming
- **Outreach Coordinator, Research Assistant:** updated website, migrated professor resources, and analyzed mice dMRI images

IBM Talent Identification
IBM Accelerate Program

May 2021 – July 2021

- Prepared and presented a consulting solution for a case study reviewed and approved by IBM consulting managers (www.credly.com/go/Ybv267A6)

Volunteering, Leadership & Mentoring
- **President and Founder at the Key of Life Scouting Group:** training 14 youths on leadership skills
- **Chief Executive Connector at Young Alumni Advisory Board:** serving to create and lead events for alumni and students
- **Coptic Fellowship President and Khoury College's Peer2Peer Network ambassador:** mentored and lead tens of students
- **Representative at the ASA:** contributed to club planning and organization