

# Roxana Neophytou

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As a senior software engineer with expertise in databases, cloud computing, and microservices, I bring a proven track record of delivering complex, scalable solutions. At DataStax, I improved product stability and user experience through efficient problem solving and I optimized AWS automation tools, while at IBM, I enhanced and maintained cloud-native microservices and contributed to architectural innovations. In addition to my technical skills in Java, Python, and Kubernetes, I have served as a Scrum Master, driving agile practices and team success, and I actively promote women in engineering through volunteering with SWE

## EXPERIENCE

### **DataStax, Pittsburgh — Database Software Engineer**

OCT 2023

Responsible for supporting, fixing bugs, and building new releases of the Datastax Enterprise, a scale-out, cloud native NoSQL database based on Cassandra. The challenges consist in (1) complexity: a distributed database with multiple advanced workloads and complex testing ecosystem (2) size - over 1M lines of code in product plus 300k in tests. Additionally I have been taking leadership in upgrading and improving a python tool used to automatically create AWS instances of various platforms and install a chosen version of the product. I am currently using Java and Python and I am involved in updating Jenkins jobs for CI/CD pipeline.

### **Turbonomic, IBM, Pittsburgh — Scrum Master and Team Lead Software Engineer**

JUN 2022 - MAY 2023

My contributions in this position were: (1) support platform and database side of Turbonomic by debugging, fixing, and testing solutions on-prem and in the cloud, (2) research different database solutions and provide feedback on what should be the recommended approach (3) part of the architectural design and implementation of the new platform solution (4) Create and update the

learning resources (5) scrum master for the team.

### **IBM Watson, Pittsburgh — Team Lead Software Engineer**

JAN 2021 - JUNE 2022

As a member of the Watson Discovery Ingestion team I was responsible for supporting, updating and maintaining more than ten microservices and their corresponding cloud resources. I had direct interactions with frontend, design, and testing teams providing feedback and solutions for different topics. I was part of the engineering team in charge of creating version 2 of the Discovery product with direct contributions to the API, rabbitMq connectivity, mTLS certificate solution.

### **IBM Watson, Pittsburgh — Iteration Manager and Team Lead Software Engineer**

FEB 2021 - DEC 2021

As a scrum master for the team I was working closely with the product manager and the management to plan, evaluate, and deliver on time the proposed work. I was part of the spring planning and the quarterly planning and I was in charge of evaluating the risk of falling behind schedule as well as estimating the amount of work the team can successfully produce. The scrum master responsibilities were on top of my engineering role mentioned above.

### **IBM Watson, Pittsburgh — Software Engineer**

SEPT 2014 - DEC 2020

I was in charge of supporting and extending Watson Discovery in the initial Watson Explorer version. I was developing solutions for different data connectors that will bring data into Watson Explorer. I was in charge of the database solution for Data Explorer while we were building a new version of Watson Explorer along with supporting previous versions of the software and the individual connectors and working with customers as a level 2 support engineer. I also coordinated a database connector project assigned to our long term interns and I was in charge of creating and delivering a successful internship experience for a highschool student.

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## SKILLS

**Backend:** Java, Scala, REST, Node.js, Python, Bash Scripting, cQL, SQL, PL/SQL, Jenkins

**Databases:** Cassandra, PostgreSQL, MariaDB

**Cloud Native Tools:** Microservices, Cloud Foundry, Docker, Elastic Search, Kibana, Kubernetes

**Other:** Gradle, GitHub, Agile Methodology, Scrum Master, TensorFlow, NumPy

## PATENTS

Implicit Relation Induction Via Purposeful Overfitting Of A Word Embedding Model On A Subset Of A Document Corpus, 2021

## EDUCATION

**University of Pittsburgh, Pittsburgh, PA — Doctor in Philosophy**

AUG 2014

“Unifying Qualitative and Quantitative Database Preferences to Enhance Query Personalization”, PhD thesis

**University of Pittsburgh, Pittsburgh, PA — M.Sc**

DEC 2013

## PROJECTS AND COURSES

IBM AI Skills Academy Deep Learning Practitioner, 2020

Sequence Models, Coursera 2020

Convolutional Neural Networks, Coursera, 2020

IBM Machine Learning with Python - Level 1, 2019

IBM Python for Data Science, 2019

Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization, Coursera 2018

Neural Networks and Deep Learning, Coursera 2018

## CERTIFICATIONS

AWS Certified Cloud Practitioner, 2023

AWS Partner Accreditation, 2023

IBM Cloud Essentials, 2022

Containers and Kubernetes Essentials, 2021

Frontend Dev. Career Path Scrimba Certificate, 2021

IBM Agile Advocate, 2021

IBM Agile Explorer, 2018

## PUBLICATIONS

\* Roxana Gheorghiu, Alexandros Labrinidis, Panos K. Chrysanthis – “A User-friendly Framework for Database Preferences”, CollaborateCom 2014

\* Roxana Gheorghiu, Alexandros Labrinidis, Panos K. Chrysanthis – “UPPG: A Holistic Database Preference Model”, HDMS 2014 \* Roxana Gheorghiu, Alexandros Labrinidis, Panos K. Chrysanthis: “Database preferences – A Unified Model”, PersDB 2012

\* Panayiotis Neophytou, Roxana Gheorghiu, Rebecca Hachey, Timothy Luciani, Di Bao, Alexandros Labrinidis, G. Elisabeta Marai, Panos K. Chrysanthis – “AstroShelf: Understanding the Universe through Scalable Navigation of a Galaxy of Annotations”, SIGMOD 2012

\* Roxana Gheorghiu, Kurt VanLehn – XTutor: An Intelligent Tutor System for Science and Math, Intelligent Tutor Systems 2008

## LANGUAGES

Romanian, English, French

## **VOLUNTEERING WORK**

### **STEM Girls Connect !**

MAY 2023 : A SWE event for Highschool girls to promote engineering roles and engineering fields. I volunteered to talk with multiple groups of 5 girls in a speed date type of event.

### **SWE Congressional Outreach, Washington DC**

APRIL 2023 : 100 SWE Members based in the United States were in Washington, DC last week to advocate for the full inclusion of women and girls in engineering and technology.

### **SWE Judge for Mission And Cultural Award Program**

JUL 2022 : Evaluate entries for the Mission And Cultural Award. I was assigned four different entries and each entry was evaluated based on four goals.

### **Virtual Silicon Valley Women in Engineering Conference**

MAR 2022 : Leader of the discussion about steps to take for advancing career goals at WiE Online Conference Round Table session.

### **Mentorship 101: Organized by Society of Women Engineers**

AUG 2021 : Moderate breakout session rooms with 3-4 highschool students and discuss with them about the mentorship benefits.

### **Build-a-Resume Workshop: Organized by SWE**

JUL 2021: Moderate breakout session rooms with 3-4 highschool students and discussed with them the content of their own resume.

### **Panelist at AI Summer Camp: Organized by SWE**

JUL 2019: Discuss with kids from elementary school about being a women engineer