Resume Analysis

Technical Resume uploaded on
January 11th at 4:39 AM

General Overview

Points

0

-8

Lost	Amount	Points
Flags	0	0
Improvements	8	-8

Breakdown

Analysis	Your score	Highest score in your division
General	65	80
Formatting	70	70
Content	165	250

Analysis

General

1

Type	Category	Recommendation
Improvement	General	Number of pages Your resume contains more pages than recommended. Other peers at your university with similar experience and level of degree have 1 page resumes. Quinn suggests you revise it down to 1.

Formatting

1

Type	Category	Recommendation
Improvement	Formatting	Repeated Words The word is used a few times. It would be best to vary a bit and provide a synonym. If it's not industry specific and relevant, using the same word over and over can imply a lack of effort. Brainstorm or use a thesaurus to freshen up your language a bit.

2

Type	Category	Recommendation
Improvement	Formatting	Repeated Words The word is used a few times. It would be best to vary a bit and provide a synonym. If it's not industry specific and relevant, using the same word over and over can imply a lack of effort. Brainstorm or use a thesaurus to freshen up your language a bit.

Content

1

Type	Category	Recommendation
Improvement	Content	Inconsistent bullet point punctuation Quinn has detected inconsistent punctuation in your bullets. Consistency is key for resumes so be sure you are using the same punctuation throughout. Whether you use periods to end your bullets or have no punctuation at all, it will work. Just be sure it's the same.

2

Type	Category	Recommendation
Improvement	Content	Incorrect order In nearly all cases an employer prefers Work Experience to be written in reverse chronological order. Try starting with your most recent experience on the top and work back through your jobs and positions in order.

3

Type	Category	Recommendation
Improvement	Content	Quantification missing You can further improve this bullet point by adding a quantification. Quantifications should be written as a percentage (%) or monetary ($) value. However, quantifications are not required to pass an ATS. If you can add one, you should. To format bullet point descriptions that include a quantification, follow the format of "Performed X to do Y resulting in Z." Examples: - Employed HTML, CSS, JavaScript, Angular, and MongoDB to create an innovative website for an NGO, facilitating seamless management and coordination of activities, resulting in a 50% increase in volunteer engagement. - Collaborated with the interns and developed automated testing to find broken links the syllabus page which reduced 100% effort of manual testing. - Developed an object classification model and used transfer learning architecture to detect defects on 3D printed products achieving an accuracy of 89%.

Resume Highlights

MODELLING THE LEARNING OF NUMBERS IN CHILDREN, DELLAB CU BOULDER January 2023 – December 2023
Graduate Research Assistant
https://github.com/tirthankarCU/NLP_RL_Docker_Version
• Implemented a **novel OPEN AI gym environment** and **state-of-the-art Neural Network & Large Language models** like **BERT, ResNet, and an ATTENTION** network to **create a deep reinforcement learning PPO algorithm** and investigate the role of language in children's number learning. The models were **deployed on the Google Cloud Platform in DOCKER containers.**

PARTICLE FILTER GUIDED MULTI-AGENT REINFORCEMENT LEARNING, CU BOULDER September 2022 – October 2022
Independent Study Reseacher

4

Type	Category	Recommendation
Improvement	Content	Quantification missing You can further improve this bullet point by adding a quantification. Quantifications should be written as a percentage (%) or monetary ($) value. However, quantifications are not required to pass an ATS. If you can add one, you should. To format bullet point descriptions that include a quantification, follow the format of "Performed X to do Y resulting in Z." Examples: - Developed and implemented MP Neuron and Perceptron models to predict market acceptance of phones based on specifications, leveraging real data from GSM Arena; achieved an accuracy rate of 82% in classifying phones into like-dislike preferences. Documented and published an IEEE paper on the same. - Architected computer vision and machine learning models for real-time monitoring of manufacturing processes, increasing efficiency by 70% through data-driven insights. - Developed an object classification model and used transfer learning architecture to detect defects on 3D printed products. Achieved 89% accuracy.

Resume Highlights

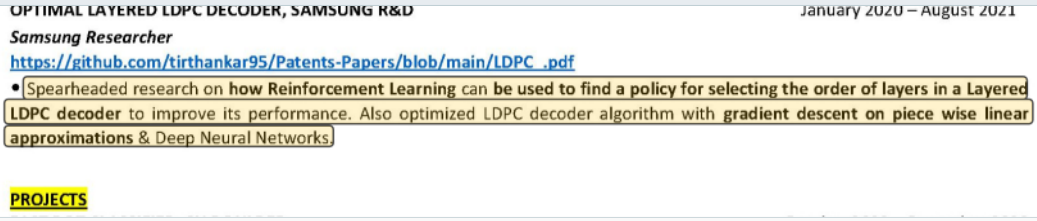
PARTICLE FILTER GUIDED MULTI-AGENT REINFORCEMENT LEARNING, CU BOULDER September 2022 – October 2022
Independent Study Reseacher
tirthankar95/IndependentStudy2 (github.com)
• Developed a novel **attention-based algorithm for multi-agent reinforcement learning which uses PARTICLE FILTER for state estimation**, with the aim to demonstrate its superior performance in collaborative tasks, such as object collection in a warehouse.

OPTIMAL LAYERED LDPC DECODER, SAMSUNG R&D January 2020 – August 2021
Samsung Researcher

5

Type	Category	Recommendation
Improvement	Content	Quantification missing You can further improve this bullet point by adding a quantification. Quantifications should be written as a percentage (%) or monetary ($) value. However, quantifications are not required to pass an ATS. If you can add one, you should. To format bullet point descriptions that include a quantification, follow the format of "Performed X to do Y resulting in Z." Examples: - Developed an object classification model and used transfer learning architecture to detect defects on 3D printed products achieving an accuracy of 89%. - Developed an object classification model for anomaly detection using transfer learning architecture to detect defects on 3D printed products achieving an accuracy of 89%. - Developed an object classification model and used transfer learning architecture to detect defects on 3D printed products. Achieved 89% accuracy.

Resume Highlights



OPTIMAL LAYERED LDPC DECODER, SAMSUNG R&D January 2020 – August 2021

Samsung Researcher

https://github.com/tirthankar95/Patents-Papers/blob/main/LDPC_.pdf

- Spearheaded research on **how Reinforcement Learning** can **be used to find a policy for selecting the order of layers in a Layered LDPC decoder** to improve its performance. Also optimized LDPC decoder algorithm with **gradient descent on piece wise linear approximations** & Deep Neural Networks.

PROJECTS

Tirthankar Mittra

Software Engineer Experience delivering products used by 100M+ users.

United States tirthankarmittra@gmail.com 7202515129 https://www.linkedin.com/in/tirthankar-mittra-9606889a/

https://github.com/tirthankar95

EDUCATION

UNIVERSITY OF COLORADO BOULDER - Boulder, CO August 2022 – December 2023

Master of Science in Computer Science

GPA: 4

Relevant coursework: Data Center Scale Computing-Methods Systems & Techniques, Linux system administration, Computer Security and Ethical Hacking, Neural Networks & Deep Learning, Deep Reinforcement Learning, Advanced Robotics, Chaotic Dynamics, Numerical Linear Algebra, Foundations of Quantum Engineering, Advanced topics in Computer Vision.

JADAVPUR UNIVERSITY - Kolkata, India August 2014 – May 2018

Bachelor of Engineering in Electronics & Telecommunication

Ranked 9th in engineering in India ~ 2017 HRD ministry report.

GPA: 3.6

Relevant coursework: Computer Language & Data Structures, Programming Lab, Numerical Analysis Lab, Data Structures & Algorithms, Computer Organization & Architecture, System Software, Computer Comm. Networks, Neuro-fuzzy Control, Operating Systems, Computer Architecture & System Software Lab.

TECHNICAL SKILLS

Functional : Agile, JIRA , Git, Gerrit, Jenkins, Perforce, Linux, Windows, CI/CD.

Technical : Python, C, C++, JAVA, HTML, CSS, Computer Vision, NLP, Reinforcement Learning, Machine Learning, Large Language Models, Deep Learning, Hadoop, PySpark, Docker Container, Kubernetes, Google Cloud Platform, PyCuda, ROS, System Design, REST, AWS, Computer Networks, Cyber Security, RabbitMQ, Flask, gRPC, Operating Systems, Algorithm & Data Structure, Redis, MinIO object store, MySQL, Pytorch, GDB, TensorFlow, Node.js, JavaScript, Database, NoSQL, Spring framework.

Framework : Spring Boot, Pytest, Gtest.

Machine Learning : Pytorch, Tensorflow, Large Language Model, Computer Vision.

PROFESSIONAL EXPERIENCE

QUALCOMM - SAN DIEGO, CALIFORNIA May 2023 – August 2023

Interim Software Engineer

- **Led the development of a PYTEST framework** verification environment for rigorous testing of the 5G base station's MAC layer. Established a prototype unit test and development workflow, laying the foundation for future test case expansions. **Utilized Python LOGGING and SUBPROCESS module**s and deepened expertise in **GIT and GERRIT** version control systems. The framework resulted in a 30% enhancement in testing efficiency.
- Collaborated seamlessly with cross-functional higher-layer teams within the 5G network protocol stack to develop MAC unit test cases. **Enabled PF TRACE for unit tests** to log MALLOC counts, CONTEXT SWITCHES, and PAGE FAULTS; this increased the reliability of all test cases by 25%.
- Performed **data analysis with Python's PANDAS and NUMPY packages** to formulate robust pass-fail criteria for unit tests. Implemented extended test scenarios by creating bash scripts, identifying latent faults in legacy code, and fixing them, thus increasing code reliability by 5%.

SAMSUNG R&D - BANGALORE, INDIA June 2018 – August 2022

Lead Software Engineer

- **Led pioneering research** in advancing **5G algorithms through MACHINE LEARNING** techniques. Developed an **improved LDPC layered decoder using Pytorch**, **incorporating reinforcement learning** and a **dense neural network** for function approximation which **led to a 15% increase in decoder accuracy**. Proposed innovative traffic balancing strategies in 5G systems through an open-ended intelligent search for multiple UAV base stations. Co-led a team in introducing a novel HARQ chase combining technique, for which a patent was awarded.
- **Led the development of 5G Base Station's** physical uplink control channel's **feature releases and patches for Samsung's diverse customer base**. Also, customized features for specific clients based on High-Level Designs and 3GPP specifications, following **agile workflow**, continuous integration, and continuous development **(CI/CD) practices**. **Mentored two junior team members** in MAC-PHY software development; all these efforts reduced the team's ability to release new software features by 30%.