Reet Yogesh Kothari

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EDUCATION

B.S. in Computer Science, Minor in Business Administration — **September 2020 – December 2023**
University of Washington – Seattle, WA — **GPA:** 3.63

Areas of Expertise: Data Structures, Algorithms, Database Management, Data Science, Full-Stack Development, Embedded Software Development, Web Development, Data Analytics, Distributed Systems, Network Programming, Computer Theory, Linear Algebra.

Technical Skills:
Languages: Java, Python, JavaScript, C, C++, R
Web Development: Node.js, React.js, Vue.js, REST, HTML, CSS, Bootstrap, jQuery
Database: MySQL, MongoDB, Azure SQL, DynamoDb, Spark
Miscellaneous: PyTorch, TensorFlow, Scikit-learn, Pandas, OpenCV, SciPy, NumPy, Git, Linux, AWS

EXPERIENCES

Embedded Software Design Intern — **Okemos, MI**
Perasia Technologies LLC — April 2023– Present
- Improved the ECG R-peak detection by 10% through signal filters and performed heart rate variability analysis.
- Trained an ECG beat classifier for Arrythmia detection with 98% accuracy. Also helped create the cloud instance throughout the entire Software Development Life Cycle.
- Worked on software around Autonomous, Advanced Driver Assistance Systems (ADAS) and Human to Machine Interface (HMI) in the automotive engineering industry using Embedded C and C++.

Cybersecurity Research Intern — **Bengaluru, India**
Siemens Technology and Services Pvt. Ltd. — July 2022 – September 2022
- Utilized the Siemens Intranet and research papers to explore security exploits through firmware updates in Operational Technology Systems and created a report which was used to improve security features on the SIMATIC controllers.

PROJECTS AND AWARDS

Garbage Classifier — **Seattle, WA**
PyTorch | Link — May 2023 – June 2023
- Trained a deep convoluted neural network using a Kaggle dataset to classify garbage for waste management. The network's ResNeXt blocks allows it to train for multiple epochs without the disappearing gradient issue.
- The model scored a test accuracy of 88.7206% and works on custom user input images as well.

Sharded Linearizable KV-Store (CSE 452) — **Seattle, WA**
Java | Link to spec — April 2023 – June 2023
- Developed a linearizable key-value store that utilizes Paxos servers to create a load-balancing, highly fault-tolerant distributed system that uses a two-phase commit protocol to support multi-key client transactions.

Flight Reservation Application (CSE 344) — **Seattle, WA**
Azure SQL, Java | Link to spec — February 2023 – March 2023
- Created a full-stack flight reservation application that would handle user login, conduct flight searches, make itineraries, manage reservations, and handle user balance to book the reservations.

Best Use of Data Award — **Seattle, WA**
NASA Space Apps Hackathon Challenge | Pandas, TensorFlow — October 2022
- Analyzed DSCOVR's magnetic flux data from solar winds to monitor for spikes and give an early indication for potential geomagnetic storms with about 90% accuracy.

Racial Justice — **Seattle, WA**
dplyr, plotly, ggplot, shiny.R | Link — October 2020 - December 2020
- Surveyed data related to COMPAS scores, racial risk sensitivity, fatal shooting encounters, and juvenile arrests to recognize a pattern of injustice and determine which minorities were the most affected.

Non-Technical Roles: FIG Leader Autumn 2022 (Taught a seminar of 24 freshmen students, collaborated with other leaders to develop modules), Classroom Technician Winter 2023 (Worked in fast paced environment, provided customer service).