Srihari Kompella

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Objective

Ambitious, detail-oriented, and flexible research assistant looking to leverage AI/ML, software, and analytical skills gained during pursuit of Bachelors of Science degree in Computer Engineering towards new opportunities in research.

Education

University of Illinois at Urbana-Champaign
Bachelor of Science in Computer Engineering ***3.9 GPA***

Publications

- Srihari Kompella, Sastry Kompella, "Analysis of Open Set Deep Neural Network Variants towards Classification of Known and Unknown Signals," in Proc., IEEE Consumer Communications and Networking Conference (CCNC), Jan 2023

Research, Development, and Work experience

Nexcepta Inc. | *Python, Generative AI/ML* May 2024 - Present
- Working with RF data generation with GANs and their impact on signal classifier neural networks.

Illini Electric Motorsports | *C, Integrated Electroncis, Altium, Matlab Simulink* Sept 2023 - Present (9 Months)
- Worked on Battery Current Sensing software, Inverter Torque Limiting Software, Soldering Test BMS Secondary Board, Safety Board Altium Schematic, Isolated ADC software, BMS testing/simulation software

SPARLab | *Python, PyTorch, Deep Neural Networks* Mar - June 2023 (3 months)
- Applied latency-reducing and power reducing principles to RF signal classifying neural networks
- Reduced model complexity by using unconventional neural network layers.
- Specifically reduced model FLOPS, Inference time, Power Consumption, GPU temperature, and network Parameters, and reduced inference time by 250%

Cornell University Department of Mathematics | *Python, Federated Learning* July - August 2022 (2 Months)
- Implemented a communication-efficient surrogate to the global likelihood function for low-dimensional estimation
- Tested the algorithm with logistic regression on a local sample size of 64 on 100 to 10000 different local machines to test if the algorithm functioned as advertised.

SPARLab | *Python, TensorFlow, Deep Neural Networks* March - August 2022 (5 Months)
- Built 6 open-set and closed-set Deep Neural Networks (DNN) aimed at classifying RF signal data
- Utilized the OpenMax library and extreme value theorem to create open-set neural networks
- Analyzed differences in classification performances of open-set and closed-set versions of CNNs, such as LSTM Networks, Residual Networks, and traditional Convolutional Neural Networks

Infocrunch Pvt. Ltd. | *AWS DynamoDB, NoSQL* July - August 2023 (1 Month)
- Built a Twitter-like back-end system using AWS DynamoDB
- Used AWS Lambda to create endpoint functions for services and APIs in the system

Skills

Languages: Python, Java, Linux, JavaScript, HTML/CSS, AWS DynamoDB, C
Tools: Latex, CAD, Figma, NoSQL
AI/ML: TensorFlow, PyTorch, Open-set learning, Deep learning, Generative AI/Learning

Awards and Honors

Student Travel Grant: IEEE Consumer Communications and Networking Conference 2023
Sigma Xi Award: Named Associate member of Sigma Xi Society 2023
National Merit Scholarship Finalist 2023

Relevant Coursework

Calculus 3, Discrete Mathematics, Linear Algebra, Introduction to Computing, Computer Systems and Programming, Introduction to Electronics, Physics Electricity and Magnetism, Physics Mechanics, Thermodynamics, Quantum Physics, Differential Equations, Introduction to Electronics, Computer Systems and Programming