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|------------|---|------------------|
| EXPERIENCE | <b>Senior Software Engineer – BGP, Cisco Systems Inc.</b>   | 2013-<br>Current |
|            | <ul style="list-style-type: none"><li>Implemented Local SR-policy steering section in “Segmented Routing Policy for Traffic Engineering” RFC. Feature is currently deployed at Google.</li><li>Implemented remote-as commit-replace feature to enhance automation of configuring IOS-XR boxes. Feature enables moving the remote-as configuration under a neighbor to a neighbor-group/session-group config in a single commit. Feature is currently deployed at Google.</li><li>Developed Backup-route tracking feature in RIB. Feature lets RIB application clients to track the metric of the second best route to update the application route’s metric.</li><li>Enhanced IPv6 ND and RIB to be ISSU (In Service Software Upgrade) aware.</li></ul> |                  |
| EDUCATION  | <b>University of Michigan, Ann Arbor, MI.</b>   | 2011-2012        |
|            | Masters in Electrical Engineering: Systems GPA: 3.5/4.0<br>Coursework: Artificial Intelligence, Machine learning, Estimation Filtering & Detection, Probability & Random processes, Mathematical Methods for Signal processing, Embedded Control, Linear System Theory, Patent Law and Strategy.  |                  |
|            | <b>Delhi College of Engineering, Delhi, India.</b>  | 2007 - 2011      |
|            | Bachelors in Electrical Engineering.<br>Overall Aggregate - 70.29%. Ranked Fourth in the Department.  |                  |
| PROJECTS   | <b>Student Research Assistant - University of Michigan, Ann Arbor</b>   | Sum 2012         |
|            | <ul style="list-style-type: none"><li>Implemented and successfully tested the etherCAT communication stack for an in-house built etherCAT slave device. The software stack was written in C and was integrated to work with xPC target.</li><li>Developed Sensor libraries in C for Atmel Xmega128A, for interfacing the sensory system (IMU, Motor Encoders) to the etherCAT bus.</li><li>Deployed Linux kernel modules for real-time control of the robot, using etherLAB API on RTAI-patched RT Linux. Modules were written in C.</li></ul>  |                  |
|            | <b>Intern – Lockheed Martin Aeronautics</b>   | 2009 - 2011      |
|            | <ul style="list-style-type: none"><li>Awarded <b>\$250,000</b> to develop next-generation UAV for urban environment surveillance and reconnaissance.</li><li>Developed C++ plugins for displaying telemetry data, using PICCOLO Autopilot GCC API.</li><li>Coded Performance Analysis scripts in MATLAB for the Airframe design team. Presented the Preliminary and Conceptual Design of the project at Lockheed Martin F-16 production plant, Texas.</li><li>Accounted the expenditures of the project to ensure transparency and accountability.</li></ul>  |                  |
|            | <b>AUVSI Student UAS Competition (<a href="http://www.dceuav.com/">http://www.dceuav.com/</a>)</b>  | 2009 -2010       |
|            | <ul style="list-style-type: none"><li>Developed an indigenous Autopilot in a team of 5, using the TS 7800, ARM-based Single board Computer to participate in the AUVSI Student UAS Competition Maryland.</li><li>Wrote control code in C for computing the elevator, rudder and aileron servos using the sensor data. Generic kalman filtering code was used for data fusion and pose estimation.</li><li>Designed a model-based control system for the SIG-RASCAL 110 airframe in MATLAB and SIMULINK.</li><li>Ranked 10th among 30 teams and awarded the ‘Systems Engineering Award’.</li></ul>   |                  |
|            | <b>Adaptive Cruise Control</b>  | Fall 2011        |
|            | <ul style="list-style-type: none"><li>Designed an Adaptive cruise control system for a vehicle on the MPC5553 Freescale microprocessor using automatic code generation with MATLAB/SIMULINK and RAppID toolbox.</li><li>The algorithm identifies a lead vehicle from the data sent over a CAN bus from other driving simulators and maintains a constant position with respect to the lead vehicle if it is within a critical distance.</li></ul>   |                  |
|            | <b>Finnish Mileage Marathon – SuperMileage Vehicle</b>  | 2008-2009        |
|            | <ul style="list-style-type: none"><li>Led a Team of 5 people to develop a fuel efficient engine. Final recorded <b>Mileage: 253 mpg.</b></li><li>Optimized fuel consumption by computing a traverse path for the vehicle, using the track gradient profile and current heading in MATLAB.</li><li>Awarded ‘Best New Team Award’ and ‘Most visually Appealing vehicle’.</li></ul>  |                  |
|            | <b>Quadrotor Control and Motion-Simulation</b>  | 2010-2011        |
|            | <ul style="list-style-type: none"><li>Developed a Non-Linear Model of the commercially available X-UFO in SIMULINK. Linear Model at different operating points was used to grade the performance of an LQR controller.</li></ul>  |                  |
| SKILLS     | <b>Programming Skills:</b> C, C++, python.  |                  |
| HOBBIES    | President – Debating Club, DCE, India.<br>Wikipedian –Telugu, English (edits: 89, username: khareen).<br>Playing Badminton.   |                  |