CHANDAN SRINIVAS

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WORK EXPERIENCE

MOOG Inc   Jul 2023 -Present
Firmware Development Co-Op/Intern   *Bangalore, India*
- Successfully developed firmware tailored for ARM-based processors to control actuator-motors and deployed it by integrating it to the legacy code.
- Coordinated closely with the electronic hardware and product development team of 10, ensuring that the firmware met all requirements and to optimize the performance of precision-controlled motors.
- Spearheading the development of simulink based models for TI's C2000 real-time microcontrollers, aiming to reduce the development time by *50%*.

INTERNSHIPS

PI Square Technologies   Feb 2023 - May 2023
Linux Software Intern   *Bangalore, India*
- Explored the architecture of the Ubuntu Linux distribution and designed a resilient chat application using TCP/UDP protocols and socket programming, bridging networking concepts with system-level coding.
- Engineered a program adhering to industry-standard Software Development Life Cycles (SDLCs) including V&V and ASPICE methodologies, resulting in a program with zero defects.
- Recognized for exceptional performance in developing an efficient and robust application in less time, acknowledged as *top* performer/*65* peers.

Entuple Technologies   Dec 2022 - Jan 2023
Physical Design & Verification Intern   *Bangalore, India*
- Successfully understood and implemented Semi-Custom ASIC Design Flow using Cadence Innovus, PVS, Genus and Tempus.
- Simulated and Synthesized the RTL code of Counter and UART using Xcelium and Genus, flushing the netlist through PnR flow and obtaining GDS-II file after performing physical verification.

Maven Silicon Softech Ltd   Aug 2022 - Sep 2022
Design Intern   *Bangalore, India*
- Developed an AHB-APB bridge module using Verilog, implementing a master-slave interface for the AHB and APB buses and constructing a Finite State Machine of the APB Controller module.
- The bridge module achieved a throughput of 100Mb/s working at 100 MHz and a latency of 10ns, meeting all performance requirements such as setup and hold time.

PROJECTS

- **Full Custom Design of Peripheral circuitry for 8x8 SRAM Block (Jan '23 - May '23)**:
  - Designed and implemented a full-custom 8x8 SRAM block, automating parts of the process using Cadence SKILL to reduce development time by *50%*.
  - Designed and compared peripheral circuits such as decoders, sense amplifiers, and precharge circuits, selecting the most efficient designs for the SRAM block.
- **Comparative-Analysis-of-Decoders-using-Static-Dynamic-CMOS-Logic (Aug '22 - Oct '22)**:
  - Designed and compared decoders using static and dynamic CMOS logic, evaluating their power consumption and delay characteristics.
  - Published the results of the project in a conference paper, demonstrating the feasibility of using dynamic CMOS logic to design low-power, high-performance decoders.
- **PIOs on AXI and Light-weight AXI bus (Apr '22 - Jun '22)**:
  - Developed Embedded C and Verilog codes to unlock the high computational power of Altera SoCs by bridging the FPGA fabric and ARM Cortex-A9 processor via the AXI bus.
  - This enabled the mapping of virtual memory to physical memory, improving the performance and efficiency of applications running on the SoC.
- **Full Adder using Transmission Gates (Apr'22)**:
  - The schematic and layout of a full adder were designed using transmission gates.
  - Performed transient analysis to obtain timing curves, ensuring that the design met all performance requirements.

CERTIFICATIONS

- **Cadence RTL-to-GDSII Flow, Cadence Design Systems (2023)** - Developed proficiency in RTL to GDS flow including RTL design, Synthesis and Formal verification.
- **SKILL Language Programming, Cadence Design Systems (2023)** - Developed proficiency in SKILL scripting and automation, reducing design turnaround time.
- **CMOS Digital VLSI Design, IIT Roorkee (2023)** - Studied CMOS digital circuit design, including low-power design, expanding my knowledge in digital design.
- **Microcontroller Embedded C Programming, Fastbit Embedded Brain Academy (2022)** - Developed proficiency in microcontroller embedded C programming, including memory management, register access, and IC datasheet interpretation.
- **Certified SOLIDWORKS Professional in Mechanical Design, Dassault Systemes (2021)**- Designed complex features using SOLIDWORKS, utilized design validation tools for accuracy, and assembled parts with ease and efficiency.

SKILLS

- **Programming Languages**: Verilog, C++, Embedded C, Shell Scripting, TCL, Cadence SKILL.
- **Tools**: Matlab/Simulink, Intel Quartus Prime, Proteus, Cadence Virtuoso Tool Suite(Quantus RC & PVS, Spectre, Virtuoso ADE), Cadence Innovus, Xcelium, Genus, Tempus.
- **Platform**: Windows, Linux.
- **Protocols**: SPI, I2C, UART, AHB/APB, CAN.
- **CAD Design Software**: CATIA V5 & SOLIDWORKS.
- **Other Skills**: Latex Editor, Microsoft PowerPoint, UAV Fabrication.

CONFERENCE PUBLICATION

Chandan Srinivas, B. G S, C. S P, K. E. A and P. Vimala, **"Comparative Analysis of Decoders using Static & Dynamic CMOS Logic,"** *2023 International Conference on Advances in Electronics, Communication, Computing and Intelligent Information Systems (ICAECIS)*, Bangalore, India, 2023, pp. 368-372, doi:10.1109/ICAECIS58353.2023.10170322.

EDUCATION

Dayananda Sagar College of Engineering   2019 - 2023
B.E. in Electronics and Communication Engineering; **CGPA: 8.88/10** *(Top 8%/250)*   Bangalore, India
Relevant Coursework : Digital Electronics, Digital System Design using Verilog, Fundamentals of VLSI, ASIC Design, System Verilog for Verification, Embedded Systems Design, Micrcontrollers.

KMWA PU College   2017 - 2019
Grade 12; **94.67%** *(Rank 8/200)*   Bangalore, India
- *Physics, Chemistry, Mathematics, Computer Science, Kannada and English*

Atreya Vidyaniketan   2008 - 2017
Grade 10; **CGPA 9.6/10** *(Rank 2/18)*   Bangalore, India
- *Physics, Chemistry, Mathematics, Computer Science, Social Sciences, Hindi, Kannada and English*

LEADERSHIP EXPERIENCE

Aspire Leaders Program, Aspire Institute, Harvard University   Jan 2023 - Jul 2023
Leadership Trainee   *Virtual*
- Selected to be a member of an exclusive cohort of **800/52,000** applicants, representing **160+** countries.
- Participated in immersive discussions with distinguished Harvard University professors, delving into global issues such as violence and harassment and exploring potential solutions.

Team ARCIS, AIAA 2022   Sep 2021 - Jun 2022
Vice Captain and Head of Avionics   *Bangalore, India*
- Led a team of 15 students to participate in the AIAA Design/Build/Fly Challenge, an international competition to design, build, and fly a lightweight, high-strength UAV.
- Developed a progressive plan of action that guided the team through the design, development, and fabrication process, resulting in a UAV that weighed under **8,500 grams**, had a wingspan of **2** meters, and could fly for over **4** minutes at a top speed of *35 km/h.*
- Mentored new recruits and guided them in computing the electrical requirements for the propulsion and communication systems, and design requirements with a focus on maximizing performance and efficiency.
- Led the team to achieve a **19th** place finish in the competition for Technical Design Report.

Team ARCIS, SAE Aero Design West 2020 and 2021   Sep 2019 - Jun 2021
Technical Engineer and Chief of Design   *Bangalore, India*
- Executed a iterative dynamic design life-cycle to create an optimized design, reducing the weight of the UAV by **20%** than expected.
- Conducted research, communicating complex technical information in a clear and concise manner.
- Led the team to secure **2nd** place internationally for Technical Design report, which was judged on criteria such as technical innovation, feasibility, clarity, and impact.

HONORS AND AWARDS

- Awarded **Best Cadence Award** and **Best Project Award** (**INR 20,000**) at SRISHTI 2023, a national competition.
- Awarded National level scholarship (**INR 50,000**) throughout undergraduate years waiving approximately **15%** of tuition.
- Top **8%** of 250 students in the Electronics and Communication Department.
- Team shortlisted for Zonal Round in AAKRUTI 2021, a national competition organised by *Dassault Systèmes.*
- Gold medal for technical presentation at SAE Aero Design West 2020.
- Led team of *4* to secure *2nd* place internationally in SAE Aero Design Micro Class 2021.
- Led team of **15** to secure **19th** place out of **110** teams in AIAA-DBF 2022 technical design report category.

VOLUNTEERING & COMMUNITY SERVICE

Marshel, NGO
- Created awareness on tourism in a rural part of Karnataka to promote eco-tourism increasing visitors number by **15%**.
- Conducted a survey in a jurisdiction encompassing *50* houses to demystify female sanitation, menstruation, hygiene and raised awareness on these topics among children and women living in this area, reaching over *100* people.

Rotaract Bangalore West
- Secured financial resources through crowdsourcing to support the vulnerable group of people with disability (blind), raising over **INR 40,000** to purchase Braille equipment.
- Assisted approximately *30* members by facilitating the use of Braille equipment and walking canes, enabling their independent average walking distance by *20%*.

LANGUAGES AND HOBBIES

- Languages - Kannada, Hindi, English *(IELTS BAND 8.0)*, German *(Level B1)*
- Hobbies - Swimming, 3D-Modelling, Trekking.