Pranav Shankar Bijapur

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Education

B.M.S. COLLEGE OF ENGINEERING, Bangalore   August 2014 – May 2018
Bachelor of Engineering (B.E.) in Electronics and Communication Engineering
Cumulative GPA: 8.87/10 - First Class with Distinction

Experience

SABRE TRAVEL TECHNOLOGIES, Bangalore
    Associate Software Engineer   January 2018 – Present
- Working on GetThere, an industry-standard corporate trip booking tool
- During 6-month internship, implemented an XML CRS (computer reservation system) simulator to automate testing of the legacy system to shop, price and book flights, hotels and rental cars
- Added new features to Policy Decision Engine used to configure rules to decide which assets (hotels / corporate properties, air fares, car rentals) are in the corporate policy for a given user
- Took up additional role of scrummaster for my scrum team
- Keywords: Java, SQL, Springboot, REST, Scrum

BUTTERFLY EFFECT, Accra, Ghana
    Intern   July 2017 – August 2017
- Butterfly Effect (http://butterflyeffectgh.com/) is a small startup that runs ambitious initiatives: creating a unique k1-6 curriculum, customized templates for lesson plans and syllabi, a year long leadership immersion programme for Ghanaian students across various schools
- Got to experience education in Ghana through a wide variety of activities: from training teachers to create customized lesson plans in underprivileged schools to planning and implementing workshops in the most well-to-do private international school in Ghana
- Skills: writing, graphic design, creating lesson plan templates, hands-on teacher training

HINDUSTAN AERONAUTICS LIMITED, Bangalore
    Intern   July 2016
- Worked at the FTC (Flight Test Centre) of the Rotary Wing division - which manufactures and tests helicopter prototypes in various stages of airworthiness certification
- Worked in the Design and Development lab to develop devices to support units on ground
- Used Arduino Uno and ARM boards to develop handheld device for DAQ (Data Acquisition System) to verify stored data by reading it serially at 256 kbps

Projects

ESTIMATE PHOTOVOLTAIC POTENTIAL BY SATELLITE IMAGE SEGMENTATION
                    May 2019 – November 2019
- Team of 3; collaborated with BMS's CS and Electrical HoDs to apply deep learning techniques on low-medium resolution satellite imagery of Bangalore city
- Developed custom U-Net, used standard equations to estimate rooftop photovoltaic potential
- Presented paper at the 9th International IEEE IACC - December, 2019

REINFORCEMENT LEARNING IN THE SMART GRID   January 2018 – October 2019
- Team of 3; created general, extensible mathematical model of a Smart Grid environment – with multiple Sources and Loads to simulate the interactions between them
- Used Reinforcement Learning to train a Battery Agent to optimize parameters like savings, battery life and battery longevity – in a dynamic electricity pricing scenario
- Presented paper in IEEE Power Electronics, Smart Grids and Renewable Energy - January, 2020

IoT HOME AUTOMATION USING RASPBERRY PI   January 2016 – March 2016
- Funded by the Innovation Cluster Lab @ BMS
- Developed and implemented a prototype of a smart home with central dashboard and face detection
- Keywords: Raspberry Pi, Open CV, Python, camera module, miscellaneous sensors/actuators

Leadership and Activities

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
Secretary - Executive Committee   August 2016 – February 2018
- Organized technical talks, workshops and events on campus with 50+ attending
- Expanded student-run weekly classes for AVR microcontrollers, Python programming and Aerospace; got international recognition from IEEE (Darrel Chong award)

THE MELTON FOUNDATION
Campus Outreach Fellow, Leadership Intern   May 2016 – September 2019
- The Melton Foundation is a network of partner universities in 6 countries that supports emerging changemakers https://meltonfoundation.org/
- Underwent 8-month Global Citizenship training in various social subjects – social innovation, systems thinking, effective communication, project management, design thinking
- Worked in cross-cultural, cross-functional teams to research on mental health – interview and prototype – in collaboration with the HPI School of Design Thinking, Germany
- Worked as Campus Outreach Fellow for BMS – planned communications strategy, handled social media accounts and exchanged best practices with Outreach Fellows from other campuses
- Organized week-long international intercultural Global Citizenship Conference in Bangalore with 250+ delegates from 6 countries
- Leading team of 6 to design and develop mobile app with $3000 budget

Publications

- Estimation of rooftop solar energy generation using Satellite Image Segmentation, presented at IEEE 9th International Advance Computing Conference - December 2019, to be published in IEEE Xplore
- Reinforcement Learning for energy storage optimization in the Smart Grid, accepted to the IEEE international conference on Power Electronics, Smart Grid and Renewable Energy - January 2020

Skills

Technical skills: Java, Python, R, Git, Selenium
Other skills: Design Thinking, Intercultural Communication
Electronics platforms: Raspberry Pi, Arduino, AVR ATmega
Find me on the web: linkedin.com/in/pranav-bijapur/   github.com/pranavsb   pranavsb.me