Arko Chatterjee

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Education

- **SRM Institute of Science and Technology** — Chennai, India
  B.Tech in Electronics and Communication Engineering — First Class — *July 2016 - May 2020*
  - **Thesis :** Carotid Artery Abnormalities using Computational Intelligence
- **Don Bosco School Park Circus** — Kolkata, India
  High School - ICSE : 88.4% , ISC : 90.5% — *2003 – 2016*

Experience

- **GAIUS Networks INC**
  Head of Engineering — *Dec 2019 - Present*
  - Leading the engineering team of 8 to empower the next 3 billion mobile users to interact, transact and monetize with local content and communities.
  - Conceptualizing and managing projects across **EdTech**, **HealthTech** and **Analytics** Vertical of GAIUS. Interacting with clients and partners to deliver and deploy such instances at scale.
  - Developed several core services such as CMS, Community, Classrooms, Marketplace of GAIUS as a Full Stack Engineer previously.
- **Indian Institute of Technology Kharagpur** — Kharagpur, India
  Research Intern | ***Supervisors :*** *Prof. Niloy Ganguly & Ms. Madhumita Mallick* — *Summer 2018*
  - Researched on **Transient Anomaly Detection in Smart Homes** as a part of **CNeRG Lab**
  - Implemented apriori based algorithm to correlate sensor data collected from Smart IoT Devices to predict Transient Anomaly/Failure of the such sensors based on activities of a person in a house over a period of time.
- **SRM Institute of Science and Technology** — Chennai, India
  Undergraduate Research Assistant — *Jan 2018 - May 2020*
  - Researched on **Carotid Artery Abnormalities using Computational Intelligence** to execute new pre-processing techniques and benchmark results for predicting abnormalities employing Capsule Network architecture under the supervision of **Prof. S. Dhanalakshmi**
  - Worked on **Prognosis of Microaneurysm and early diagnosis system for non - proliferative diabetic retinopathy using Deep Convolution Neural Network** to suggest best algorithms and models to achieve maximum validation accuracy within the provided dataset under the supervision of **Prof. A. Shanthini**
  - Worked on **Smart Water Irrigation for Industry 4.0** to setup a microprocessor prototype handling all MQTT communications and deploying an interactive web-interface under the supervision of **Prof. P. Eswaran**
- **Skybits Technologies Pvt. Ltd** — Kolkata, India
  Computer Vision Intern — *Winter 2017*
  - Developed a Mood Detection model using pre-trained VGG-16 architecture which detects 6 different type of moods utilizing FER-2013 repository and deployed the model through an interactive webapp using Django
- **Hewlett Packard** — Kolkata, India
  Summer Intern — *Summer 2017*
  - Researched and presented a white paper on "Demystify the Proposal of a Smart City in Bidhannagar and Rajarhat using Machine Learning, IoT and AI" under the supervision of Mr. Chiranjib Banerjee

Publications

- **Demo: A Hyperlocal Mobile Web for the Next 3 Billion Users**
  A Sathiaseelan, ***A Chatterjee****, M Lal, Y Zaki, L Subramanian*
  Accepted at ACM MobiCom 2020 : 26th Annual International Conference on Mobile Computing and Networking
- **Diagnosis of Atherosclerotic Plaques in Carotid Artery using Transfer Learning**
  A Chatterjee*, JR Nair, T Ghoshal, S Latha, D Samiappan*
  Accepted at 5th International Conference on Communication and Electronics Systems (ICCES 2020)
- **Green Sense : A Smart Assistant for Agriculture Management using IoT and Deep Learning**
  A Chatterjee*, Abhijeet, S Basu*
  Accepted at INDIACom-2019 : 6th International Conference on Computing for Sustainable Global Development

Skills

- **Languages :** Shell, Python, Javascript, PHP
- **Frameworks and DB :** Django, Flask, Apache, Ngnix, MongoDB,MySQL, phpMyAdmin, CGI, Version Control, Git
- **Cloud Services :** Docker, Kubernetes, Digital Ocean, Heroku, Firebase, Azure, Amazon Web Services

Activities

- **Team Envision** Chennai, India
  Organiser and Technical Head *March 2019 - March 2020*
  - Leading and Mentoring the consortium of AI, IoT, Blockchain, Web App Developers, Visual Designers who work closely to ideate, design, fabricate and develop products to tackle campus and community issues and problems.
  - Lead and mentored members of Team Envision to win National Level Hackathons viz.(**Smart India Hackathon, Accenture Blockchain Hackathon, Hack36, Code2Create**) and receiving accolades from notable leaders in tech industry.
  - Previously Led the App Development Team consisting of : Android & iOS Developers | UI/UX Designers. Our App was the 7th Trending Application in Top Free Events Category in Play Store within a day of launch

Achievements

- **Ctrl-Alt-Code National Level IoT Hackathon :** Won 3rd Position winning cash prize of 10,000 INR
- **Accenture Blockchain Hackathon 2018 :** Finalist and Special Mention
- **India Innovation Challenge 2017 : Texas Instruments and DST, Govt. of India :** Quarter Finalist winning components worth 200 USD
- **Mozilla Hackathon 2017, SRM IST :** Won 3rd Position
- **SRM IET Hackathon 2017 :** Won First Ruuner-Up Position
- **IT Quiz 2014, Computer Society of India :** Won 2nd Position

Projects

- **Near You :** Near You, is a crowd-sourced one-stop cloud based marketplace tracker which allows citizens and vendors to seamlessly add and edit details about the marketplaces which are open near them and also report any discrepancies during the tough times of lockdown due to COVID - 19. People can navigate to the marketplace and also share them via social media to their family, friends and neighbours. This project received accolades from SRM-IST, prominent leaders from tech industry and received **10k** pageviews within 3 weeks of launch.
- **park.ai :** park.ai is a cross-platform application which allows people to host and park their vehicles at private parking spaces. People can now host their own private parking spaces on a rental basis. It also allows the user to find available parking spaces near them using the app.
- **FacDe :** A web app which provides real time status of faculty whether they are present in their cabins. Implemented hardware and software and scaled it for implementation in SRM IST.
- **CreDApp.ai :** CreDApp.ai is an AI-driven credit rating agency that attempts to crowdsource the process by decentralizing it.
- **TrashIT :** Segregation of biodegradable and non-biodegradable waste using Deep Learning and IoT, all integrated in a garbage bin
- **XFakeNews :** NLP based model to detect fake news which achieved an accuracy of about 93%. The model was deployed in Django
- **Home Automate :** Developed a DIY Home Automation System under 10 USD using ESP8266 and Firebase.