

SHASWAT SATAPATHY

College ID: B516038 Branch: CE
 Date of Birth: 31-05-1998 (20 Years)
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OBJECTIVE

I have a solid passion for future generation networks (including 5G), machine learning in Wireless networks using artificial intelligence and wireless security. I want to work on a project in which I can advance the state-of-the-art in the field of wireless networks, including generating patents and publications in top journals and conferences.

PROFESSIONAL SYNOPSIS

- Highly skilled and result-oriented professional with some experience in future generation networks (5G), machine learning in wireless using artificial neural networks and wireless security.
- Proven ability to assess and manage complex obstacles; viewed as a strong troubleshooter.
- Efficient verbal and personal communication in English, Hindi and Odia.
- Successful in intense and demanding environments, providing decisive team leadership and structure with a track record of working as branch representative and team leader in hackathons.
- Willing to relocate.

EDUCATIONAL QUALIFICATIONS

Qualification	School/College	Board/University	Year of Passing	Percentage/CGPA
BTech (CE)	IIIT Bhubaneswar	IIIT Bhubaneswar	2020	7.75
XIth	Delhi Public School Bhilai	CBSE	2016	86.6%
Xth	Delhi Public School Bhilai	CBSE	2014	10.0

ORGANISATIONAL/WORK EXPERIENCE

- **Indraprastha Institute of Information Technology, Delhi**
Summer research Intern
May 2018 - July 2018, 2.5 months
 - Worked with Prof Sumit J Darak and Shivani Singh where we revised some existing multi-player bandit models, motivated by applications to Cognitive Radio systems.
 - By connecting change detection techniques with classic UCB algorithms, we proposed a learning algorithm, which can detect and adapt to changes, for the considered scenario.
 - Presented some simulation results to numerically evaluate the performance of our algorithm.
- **Indian Institute of Technology, Patna**
Visiting Research Scholar
Dec 2017 - Jan 2018, 1 month
 - Worked with Prof Rajiv Misra, Ajay Pratap (Senior PHD) and Shivani Singh to study the stable matching problem in graph theory with respect to a practical radio resource allocation problem.
 - Suggested a novel modelling that focuses on optimisation of connections in Heterogeneous 5G networks for better data rates at lower power and with minimum spectrum.
- **TeSoc: Technical Society of IIIT Bhubaneswar**
Active member
Aug 2017- present
 Responsible for conducting various competitive events like Path seeker, Dirt Rush, etc at college level.

- **Network Bulls Pvt. Ltd., Gurgaon**
Network Engineering Trainee (CCNA: R&S and CCNA: Security)
May 2017 - July 2017, 3 month
 - Understanding, configuring and troubleshooting basic networking hardware, i.e, Routers and switches, Cisco routing protocols, layer 2 switching, WAN protocols and basic operation of protocols in OSI and TCP/IP models.
 - Understand common security threats, implement security on Cisco routers, implement secure network management, understanding Cisco firewall technologies, understand and implement IPS, IPsec VPN, etc.

PROJECTS

- **Multi-player Bandits for Ad-Hoc Networks**
Summer Research Project
May 2018 – July 2018, 3 month
 - We took variant of the stochastic multi-armed bandit problem, where multiple players simultaneously choose from a set of arms and then resolved many drawbacks like collision, prior knowledge of users, quasi stationary reward distribution (change detection), etc
 - Furthermore, we considered two variants in this work - a static and a dynamic setting, in which players may enter and exit throughout the game.
 - To the best of our knowledge, these are the first communication-free algorithms with these types of formal guarantees.
 - **Tech stack:** Multi-Armed Bandits; Decentralised algorithms; Reinforcement learning; Cognitive Radio; Numpy; Matplotlib; Python; LATEX
- **Resource allocation in 5G Networks: A matching theory based approach**
Undergrad Research Project
Dec 2017 – Feb 2018, 3 months
 - Modelled resource allocation problem in heterogeneous multi-tier networks with the concept of stable matching and graph theory.
 - Proposed a distributed algorithm to allocate resources to the uplink transmitters which results in higher spectral efficiency and maximise the users' data rate.
 - **Tech Stack:** Network design and planning algorithm; radio resource allocation; bipartite graph; many-to-many stable matching, LATEX
- **Company's Enterprise Network**
Industrial Project
May 2017 – July 2017, 3 months
 - Proposed the design and implementation of a company's enterprise network to check the incoming & the outgoing traffic and to maintain some security concepts as well.
 - Deployed and configured Cisco Hardware products including but not limited to routers, switches, access points, and firewalls.
 - **Tech Stack:** Cisco packet tracer; networking and security protocols

ACADEMIC ACHIEVEMENTS

- Recipient of the prestigious National Talent Search Exam (N.T.S.E) scholarship awarded by CBSE, India.
- Recipient of Steel Authority of India Limited (S.A.I.L) Scholarship for academic year 2016-17.
- Secured 1st position in paper presentation competition at Advaita'18 (Annual techno-cult fest of IIIT-Bh).
- Secured 2nd position in path seeker competition that followed white lines on black background at Advaita'18.

COMPUTER PROFICIENCY

- Advanced: LATEX, Python
- Intermediate: C, C++, Networking technologies including network security (CCNA level)
- Beginner: Arduino, Solidity, Android

INTERESTS / EXTRACURRICULAR ACTIVITIES

- Street plays and Dramatics
- Public speaking and event coordination
- Reading novels
- Painting