

Arju Aman

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| ACADEMIC DETAILS | | | | | |
|------------------|---|--|--|-------|------|
| COURSE | DISCIPLINE | INSTITUTE/COLLEGE | BOARD/UNIVERSITY | SCORE | YEAR |
| BTECH | Electronics and Communication Engineering | Indian Institute of Information Technology Bhagalpur | Indian Institute of Information Technology Bhagalpur | 84.8% | 2021 |
| Class XII | - | Kendriya Vidyalaya Kankarbagh Patna Bihar | CBSE | 89% | 2016 |
| Class X | - | Kendriya Vidyalaya Kankarbagh Patna Bihar | CBSE | 10/10 | 2014 |

| ACADEMICS | |
|------------------------------------|------|
| 9+/10 GPA in 32/57 subjects | 2021 |
| 9+/10 GPA in 56% of total subjects | 2021 |
| A1 in 3/6 subjects. | 2016 |
| 97/100 in Chemistry. | 2016 |
| 10/10 in 5/5 subjects | 2014 |

| SUMMER INTERNSHIP / WORK EXPERIENCE | |
|---|------------------------|
| Game Developer-Research (Tier 1), Ingenuity Gaming - Full Time Job | May 21 - Sep 23(27 mo) |
| I was given the "High Roller Award" for exceptional performance in Jun'22-Dec'22. | 2022 |
| My Role: I started as Associate Game Developer Trainee, then was promoted to Associate Game Developer, followed by Game Developer - Research (Tier 1) 1/3 among 150+ developers and 500+ employees to be given the role of Game Developer - Research (Tier 1) | 2021 |
| Product/Business Impact: Developed 5+ online slot games Players across 42+ countries in the world currently playing these games 32+ languages & 6+ international jurisdictions supported, with 30+ currencies including cryptocurrencies Offered iOS, Android & Windows (3 platforms) compatibility in games, developed and playable on PC, Mobile Landscape & Portrait Average of 7+ features per game developed Loved and played across 66+/165 casinos around the world | 2022 |
| Product/Business Excellence: 1/10 in 500+ members selected in the R&D team on performance basis, and worked on upgrading the online slot games' framework and other processes Created 10+ high-level and low-level design documents for ease of development and better understanding 2 previously shelved projects were retested, improved, and released successfully within new timeframes | 2022 |
| Appreciations: 1/20 in 500+ members to receive the High Roller Award for outstanding contribution & business impact Achieved 100% of the goals and expectations set, earning the highest grade 'Excellent' in annual appraisal 30+ functional and cosmetic change requests proposed by various clients were successfully implemented & received appreciation for the same | 2022 |
| Leadership: Coordinated 50+ code drop activities & PoC between 3 teams (dev, test and art) to deliver new software releases to clients Provided 20+ members of the respective teams with the project-specific knowledge transfers Pitched to internal and external stakeholders, and led the efforts to make the code platform-agnostic, preventing client lock-in | 2022 |
| Technical Skills: Utilized TypeScript, JavaScript, ReactJS, PixiJS, HTML5, CSS3 and Postman, on MVC architecture Proficiency in collaborative working tools and version control systems like Github, Bitbucket and SVN | 2022 |
| Engagements: Addressed user pain points and resolved bugs through daily interaction with clients from Ukraine and UK Created the training, mentorship, and reintegration plans of 3+ employees | 2022 |
| Others: Created 10+ high-level and low-level design documents for ease of development and better understanding Served as the POC and as the SME for the slot games and wrapper designed for the respective clients Managed and coordinated the development lifecycle of art gathering, development, documentation and maintenance Received appreciation from Online Gaming Business Unit Head for fixing critical defects within deadlines Assisted in training and mentoring cycles of new joiners on project-related training and workstation setup | 2023 |
| 1. Developed and executed comprehensive training, mentorship, and reintegration plans for 3 employees on | 2023 |

PIP(Performance Improvement Plan). 2. Provided hands-on mentorship and daily progress monitoring, ensuring consistent updates and feedback. 3. Reported regularly to my manager on their progress, contributing to a 100% successful reintegration rate and improved team performance.

- 1. Created over 10 high-level and low-level design documents, including GDDs (Game Development Documents), PRDs (Performance Review and Development), and KBAs (Knowledge Based Articles). 2. Facilitated development and ensured compliance with regulations through detailed documentation, contributing to a 12% increase in project efficiency. 3. Enhanced overall understanding for over 40 internal team members (development, QA, server) and over 25 external client team members through comprehensive and clear documentation. 2023
- 1. Provided 20+ team members with project-specific knowledge transfers, including Knowledge Based Articles (KBAs). 2. Accumulated a total of over 120 hours of knowledge transfer sessions, combining both KBAs and non-KBAs. 2023
- 1. Successfully implemented over 100 change requests (CRs) over the entire tenure, including 25+ functional and cosmetic requests per project, particularly on the wrapper developed using React and JavaScript. 2. Received appreciation from various clients for the enhancements made through these change requests. 2023
- 1. Served as the point of contact (POC) and subject matter expert (SME) for slot games and the in-house wrapper developed using React and JavaScript, which supported over 10 clients. 2. The React/JS-based wrapper was the company's first in-house development and has the potential to serve as a foundational base for wrappers used by over 10 future clients. 2023
- 1. Offered compatibility across 3 platforms—iOS, Android, and Windows—ensuring games were playable on PC, Mobile Landscape, and Portrait, reaching an audience of over a million users. 2. Ensured the UI/UX was optimized for all major devices and platforms, including smartphones, tablets, and desktop computers, catering to an extensive range of user preferences and screen sizes. 2023
- 1. Revived and improved 2 previously shelved projects that had been on hold since their alpha release a year ago, successfully retesting and releasing them within new timeframes. 2. The successful release of these projects generated over £50K in revenue for the company. 2023
- 1. Addressed user pain points and resolved over 50 bugs through daily interactions with clients from Ukraine and the UK, focusing on issues reported from user experiences. 2. Conducted daily meetings during the maintenance phase, involving 15+ team members, to understand and prioritize bugs based on their impact, ensuring timely fixes. 2023

Software Engineer 1, Helmerich And Payne Technologies Private Limited - Full Time Job

Sep 23 - May 24(8 mo)

- 2+ rigs around the world will be using the web app feature whose development I contributed in • Currently its Beta version is in production and customers are using it on trial basis. It has potential to serve more than 200 active customers. • For the same product, I contributed by raising 10+ bugs in the developer testing phase as well as 5+ bugs as part of the testing team. • During the development life cycle of the project, I've worked on mockup creation, documentation, development and testing • Provided 4+ members of the team with the project-specific knowledge transfers during my tenure • Created 3+ high-level and low-level design documents for ease of development and better understanding of future new joiners to the team • Contributed in MVVM Architecture, utilizing JavaScript, VueJS, HTML5, CSS3, Figma & Postman • Proficiency in collaborative tools and version control systems like Github, Jira, Confluence and Bitbucket

2023

Intern, Electronics & ICT Academy, IIT Guwahati - Internship

May 19 - Jul 19(1 mo)

The motivation of this algorithm is to solve the problem of saving or wirelessly transmitting ECG data, which tends to have a high sampling rate. By compressing the signal, more data can be stored or wirelessly transferred using less power. 2019

The wavelet transform has emerged over recent years as a powerful time-frequency analysis and signal coding tool favored for the interrogation of complex non stationary signals. 2019

With this project we achieved average compression ratio of 12.8 with acceptable signal preservation. 2019

PROJECTS

POSITION OF RESPONSIBILITY

Training and Placement Cell Coordinator, Indian Institute of Information Technology Bhagalpur

Oct 19 - May 21

Arju Aman was one of the four Training & Placement Cell coordinators at IIIT Bhagalpur from 1st Oct '19 to 1st May'21

He helped the team to coordinate the college's placement related activities by connecting with the hiring representatives from various IT leaders and establishing a channel of communication for a long time trust in our students and institute. 2021

We were able to achieve 100% placement, even though it was the first ever batch from the college, and amidst Covid-19. 2021

- Elected as 1/4 Training and Placement Cell Coordinators at IIIT Bhagalpur from 67 students • Oversaw 100% placement of 60+ students of 2021 batch despite COVID-19 induced impediments • Brought in 62 offers from recruiters negotiating highest offer of 30 LPA & an average of 8.50 LPA • Connected with hiring representatives of 35+ companies, establishing a channel of communication • Coordinated crash courses, refresher sessions, conducted mock interviews to prepare subscribers

Cell Head, Web Cell of Media Cell of IIMA**Aug 24 - Aug 24**

Selected as the cell head among 21 applicants for the Web Cell of Media Cell IIMA

2024

EXTRA CURRICULAR ACTIVITIES

| | |
|---|------|
| Achieved 3rd position in school football competition. | 2014 |
| Winner of the Volleyball Men's event (1/13 players) at Yalgaar (Official 1s vs 2s sports competition) | 2024 |
| Winner of FIFA event (1/7 players) at Yalgaar (Official 1s vs 2s sports competition) | 2024 |
| Secured 3rd place in a team of 5 among 8 teams in a Flatlay Photography Workshop conducted by Perspectives, the photography club of IIMA. | 2024 |
| Perspectives, the photography club of IIMA. | |

AWARDS AND RECOGNITIONS**CERTIFICATIONS**

| CERTIFICATION | CERTIFYING AUTHORITY | DESCRIPTION |
|--|-----------------------------------|-------------|
| Deep Learning Specialization | Coursera & DeepLearning.AI | |
| Python for Everybody Specialization | Coursera & University Of Michigan | |
| Sequence Models | Coursera | |
| Applied Plotting, Charting & Data Representation in Python | Coursera | |
| Predictive Modelling with Azure Machine Learning Studio | Coursera | |
| Convolutional Neural Networks | Coursera | |
| Exploratory Data Analysis with Seaborn | Coursera | |
| Intro to Time Series Analysis in R | Coursera | |
| Divide and Conquer, Sorting and Searching, and Randomized Algorithms | Coursera | |

Deep Learning Specialization**Dec 20**

Completed this specialization which had five courses, those being: Structuring Machine Learning Projects, Convolutional Neural Networks, Neural Networks and Deep Learning, Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization, and Sequence Models.

2020

Learnt to build various neural network architectures like Convolutional Neural Networks, Recurrent Neural Networks, Transformers and LSTMs.

2020

I learned how to improve the performance of Neural Nets using techniques like Dropout, BatchNorm and Xavier/He initialization.

2020

I tackled real-world problems in speech recognition, music synthesis, machine translation, and natural language processing by combining theory with practical implementation using Python and TensorFlow.

2020

Successfully completed 5-courses with respective grades of 84.16%, 97.25%, 96.50%, 92.0% and 98%

2020

- Average grade of 93.58% in a specialization of 5-courses in Deep Learning by DeepLearning.AI

2020

Python for Everybody Specialization**May 20**

Completed five courses under this specialization, namely: Programming for Everybody(Getting Started with Python), Python Data Structures, Using Python to Access Web Data, Using Databases with Python, Capstone: Retrieving, Processing, and Visualizing Data with Python

2020

I leveraged the skills to dive deeper into fundamental programming concepts of Python, including data structures, networked application program interfaces, and databases.

2020

In the Capstone Project, I used the technologies learned throughout the specialization to design and create an application for data retrieval, processing, and visualization.

2020

Successfully completed 5-courses with respective grades 99.08%, 96.18%, 100%, 80.76% & 96.12%

2020

- Average grade of 94.42% in a specialization of 5-courses in Python Programming by Coursera

2020

Sequence Models**Dec 20**

Achieved a grade of 98% in a 37 hour long course on "Sequence Models" offered by Coursera and authorized

2020

by DeepLearning AI

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|--|---------------|
| Applied Plotting, Charting & Data Representation in Python | May 20 |
| Achieved a grade of 88.18% in a 24 hour long course on "Applied Plotting, Charting & Data Representation in Python" offered by Coursera and authorized by University Of Michigan | 2020 |
| Predictive Modelling with Azure Machine Learning Studio | Nov 20 |
| Achieved a grade of 100% in a course on "Predictive Modelling with Azure Machine Learning Studio" offered by Coursera Project Network | 2020 |
| Convolutional Neural Networks | Sep 20 |
| Achieved a grade of 97.25% in a 35 hour long course on "Convolutional Neural Networks" offered by Coursera and authorized by DeepLearning.Ai | 2020 |
| Exploratory Data Analysis with Seaborn | Nov 20 |
| Achieved a grade of 100% in a course on "Exploratory Data Analysis with Seaborn" offered by Coursera Project Network | 2020 |
| Intro to Time Series Analysis in R | Nov 20 |
| Achieved a grade of 96.87% in a course on "Intro to Time Series Analysis in R" offered by Coursera Project Network | 2020 |
| Divide and Conquer, Sorting and Searching, and Randomized Algorithms | May 20 |
| Achieved a grade of 95.10% in a 16 hour long course on "Divide and Conquer, Sorting and Searching, and Randomized Algorithms" offered by Coursera and authorized by Stanford | 2020 |

COMPETITIONS

| | |
|--|---------------|
| International Mathematics Olympiad 1 | Jan 12 |
| Achieved a School Rank 1 in 5th International Mathematics Olympiad organized by Science Olympiad Foundation on December 2011. | 2012 |
| Achieved an International Rank 2060 in 5th International Mathematics Olympiad organized by Science Olympiad Foundation on December 2011. | 2012 |
| PM Inside Qualified 1st round | Jul 24 |
| 1/30 (out of 94 teams) involving 261 participants to clear the preliminary round of the PM Inside Case Competition conducted as a part of WIMWI Product Weekend by the ProdMan Club of IIM Ahmedabad | 2024 |

CONFERENCES AND WORKSHOPS

TEST SCORES

| TEST NAME | DATE OF EXAM | SCORE |
|--|--------------|---------------------|
| CAT 2023 | Nov 26, 2023 | 75.20 |
| CAT 2023 | | Nov 26, 2023 |
| CAT 2023 98.91%iler. | | 2023 |
| Scored 75.20 marks in CAT 2023. | | 2023 |
| Converted IIM Bangalore call for offer in Post Graduate Programme in Management (2024-26). | | 2024 |
| Converted IIM Bangalore call for offer in Post Graduate Programme in Business analytics (2024-26) (PGPBA). | | 2024 |
| Converted IIM Calcutta call for offer in Post Graduate Programme in Management (2024-26). | | 2024 |
| Converted IIM Lucknow call for offer in Post Graduate Programme in Management (2024-26). | | 2024 |
| Converted IIM Indore call for offer in Post Graduate Programme in Management (2024-26). | | 2024 |
| Converted IIM Kozhikode call for offer in Post Graduate Programme in Management (2024-26). | | 2024 |
| Converted FMS Delhi call for offer in Post Graduate Programme in Management (2024-26). | | 2024 |

PATENTS

PUBLICATIONS

| | |
|---|---------------|
| An Efficient Bar/QR Code Recognition System for Consumer Service Applications | Aug 20 |
| Efficient bar code recognition system is crucial in a world where trade has evolved to quick commerce. We | 2020 |

wanted to leverage image processing technology learned in our class to create a solution that could enhance inventory control, and provide immediate, reliable information.

| | |
|---|------|
| This paper proposes a method for combined bar code and QR code recognition. | 2020 |
| The motivation is to have improved customer service in the consumer electronics industry. Need for accurate information in production, storage, and supply chains drove this project. | 2020 |
| It automatically decodes the code and displays complete product information. | 2020 |
| it's developed in Python using OpenCV library (external libraries needed for decoding) | 2020 |
| It was tested on a big database of items with assigned codes, with real-time image capture and processing. | 2020 |
| It showed an accuracy of 100% | 2020 |
| It has a very fast execution time of 0.25 seconds. | 2020 |
| It has a future in prototyping on micro-controllers for a practical bar code recognition system. | 2020 |
| This publication comes under the domain of "Image processing" | 2020 |
| This publication was added to the prestigious IEEE on 7th Aug 2020 | 2020 |

Detection of Malaria by Using a CNN Model

| | |
|---|------|
| This publication was added to prestigious "Springer" on 31st May 2023. | 2023 |
| This publication comes under the domain of "Deep Learning" | 2023 |
| Malaria is a dangerous disease caused by Plasmodium parasites transmitted by mosquito bites, with over 200 million people suffering worldwide and 200,000 deaths. | 2023 |
| Diagnosis is traditionally done by microscopic blood smear analysis by trained technicians. | 2023 |
| Traditional methods are time-consuming and prone to human error, which could be fatal to human life. | 2023 |
| Our work proposes a fully automated algorithm using Convolutional Neural Networks (CNN) to identify malaria from blood smear images. | 2023 |
| The dataset contains a total of 27,558 cell images with equal instances of parasitized and uninfected cells. | 2023 |
| The dataset contains all the images in a directory cell images. These images are categorized in 2 parts, Parasitized and Uninfected. Both directories contain 13,780 images according to their category. We have taken 11,024 of each category to train our model (22048 training images) and 2,255 of each category for validation (5510 validating images). | 2023 |
| We split our data set into 80% training and 20% validation. | 2023 |
| One of the major constraints during the implementation of the project was the geographical limitation of images. The images are from Chittagong Medical College Hospital Bangladesh, which might have different climatic conditions than any other place. Therefore there is a chance that findings are not geographically independent. | 2023 |
| Achieved 96.39% accuracy with 95% precision and 98% recall in detecting malaria parasites, with potential for further improvement with larger datasets. The F1 score is 96%. | 2023 |
| Our proposed model performs better than all the traditional Machine Learning algorithms like Ada Boost, Decision Tree, KNN etc | 2023 |

SCHOLARSHIPS

VOLUNTEER EXPERIENCE

| | |
|---|------------------------|
| SMILEVolunteer | Aug 24 - Aug 24 |
| Volunteered for a Science Project workshop session for 20+ underprivileged students in SMILE ACTIVITY CAMP | 2024 |
| Volunteered for a Mini MBA program workshop session for 20+ underprivileged students in SMILE ACTIVITY CAMP | 2024 |