IBM

Professional Certificate (edX)

COURSE	PREREQUISITES	CONTENT	DURATION
Micro-Bachelors in Full Stack Cloud Application Development	None	1. Introduction to Cloud Computing 2. Introduction to Cloud Development with HTML5, CSS3, and JS 3. Developing Cloud Native Applications 4. Developing Cloud Applications with Node.js and React 5. Introduction to Containers, Kubernetes and Open-Shit 6. Python Basic for Data Science 7. Python for AI and Development Project 8. Django Application Development with SQL and Databases 9. Micro-services, Server-less, Open-Shift 10. Full Stack Application Development Project 11. Cloud Application Developer Capstone	Months: 7 Hours: 5 - 8 Ac Credits: 3 Cost: 602.10 USD Self-Placed
Professional Certificate DevOps and Software Engineering	None	1. Introduction to DevOps 2. Introduction to Cloud Computing 3. Introduction to Agile Development and Scrum 4. Hands-on Intro to Linux Commands and Shell Scripting 5. Getting Started with Git and GitHub 6. Python for Data Science, AI and Development 7. Python Project for AI and Application Development 8. Intro to Containers w/ Docker, Kubernetes and Open-Shift 9. App Development using Micro-services and Server-less 10. Introduction to Test Driven Development 11. Continuous Integration and Continuous Delivery 12. Application Security and Monitoring 13. DevOps Capstone Project	Months: 12

Harvard

Professional Certificate (edx)

CS50's Computer Science

COURSE	PREREQUISITES	CONTENT	DURATION
CS50's Understanding Technology	Language: English None	1. Internet 2. Multimedia 3. Security 4. Web Development 5. Programming	Weeks: 6 Hours: 2 - 6 Self-Placed
CS50's Introduction to Computer Science	Language: English None	1. Computer Science and Programming 2. Think Algorithmically and solve Problems Efficiently 3. Concepts - Abstraction and Encapsulation 4. Concepts - Algorithms, and Data Structures 5. Concepts - Resource Management and Security 6. Concepts - Software Engineering and Web Development 7. Familiarity with - C, Python, SQL 8. Familiarity with - JS, CSS and HTML 9. Vibrant Community of Like-Minded Learners From All Levels	Weeks: 12 Hours: 6 - 18 Self-Placed
CS50's Computer Science for Lawyers	Language: English None	1. Computational Thinking 2. Programming Languages 3. Algorithms, Data Structures 4. Cryptography and Cybersecurity 5. Internet Technologies, Cloud Computing 6. Web Programming 7. Database Design 8. Cybersecurity, Continued 9. Challenges at the Intersection of Law and Technology	Weeks: 10 Hours: 3 – 6 Self-Placed

Web Programming with Python and JS	Language: English CS50 / Programming	1. HTML, CSS 2. Git 3. Python with Django 4. SQL, Models, and Migrations 5. JavaScript 6. User Interfaces 7. Testing, CI/CD 8. Scalability and Security	Weeks: 12 Hours: 6 – 9 Self-Placed
Introduction to AI with Python	Language: English CS50 / python	1. Graph Search Algorithms 2. Adversarial Search 3. Knowledge Representation 4. Logical Inference 5. Probability Theory 6. Bayesian Networks 7. Markov Models 8. Constraint Satisfaction 9. Machine Learning 10. Reinforcement Learning 11. Neural Networks 12. Natural language processing	Weeks: 7 Hours: 10 – 30 Self-Placed
Mobile App with React Native	Language: English CS50 / HTM, CSS, JS	1. JavaScript and ES6 2. React, JSX 3. Components, Props, State, Style 4. Components, Views, User Input 5. Debugging 6. Data 7. Navigation 8. Expo Components 9. Redux 10. Performance 11. Shipping, Testing	Weeks: 13 Hours: 6 – 9 Self-Placed
Game Development	Language: English CS50 / Programming	1. Principles of 2d and 3d Graphics 2. Animation, Sound, Collision Detection 3. Frameworks Like Unity and Love-2d 4. Language like – LUA and C# 5. Understanding of Basics of Game Design and Development	Weeks: 12 Hours: 6 – 9 Self-Placed
Cost: 313.20 USD (30,000 BDT) – Introduction to Computer Science + Technology | Web | Mobile | Game | AI | Lawyers			

Massachusetts Institute of Technology

Professional Certificate (edX)

COURSE	PREREQUISITES	CONTENT	DURATION
Introduction to Computer Science and Programming Using Python (6.00.1x)	Language: English High School - Algebra High School - Reasonable Aptitude for Mathematics Programming Knowledge	1. A Notion of Computation 2. Python Programming Language 3. Some Simple Algorithms 4. Testing and Debugging 5. Informal Intro to Algorithmic Complexity 6. Data Structure	Week: 9 Hours: 14 - 16 Instructor-led Cost: 135 USD
Intro to Computational Thinking and Data Science	Language: English 6.00.1x	1. Plotting with the PYLab Package 2. Stochastic Programming and Statistical Thinking 3. Monte Carlo Simulations	Weeks: 9 Hours: 14 - 16 Instructor-led
Artificial Intelligence: Implications for Business Strategy	Language: English	1. An Introduction to Artificial Intelligence 2. Machine Learning in Business 3. Natural Language Processing in Business 4. Robotics in Business 5. Artificial Intelligence in Business and Society 6. The Future of Artificial Intelligence	Weeks: 6 Hours: 6 - 8 Cost: 3200 USD
Machine Learning in Business	Language: English	1. Introduction to Machine Learning 2. Implementing Machine Learning in a Business 3. Sensing the Physical World 4. Helping Machines Learn to Use Language 5. Finding Patterns in Human Transactions 6. Machine Learning Challenges and Future	Weeks: 6 Hours: 6 - 8
Human-Computer Interaction For User Experience Design	Language: English None	1. The Essence of Interaction Design 2. Natural Interaction 3. Collaborative Computer Interaction 4. Intelligent User Interfaces and Prototyping 5. Multimedia, Speech, Vision in Computer Interaction 6. The Future Directions of User Interaction	Weeks: 6 Hours: 8 - 10
Computational Thinking for Modeling and Simulation	Language: English Algebra Calculus	1. What is Computational Thinking 2. Interpolation and Randomness 3. Integration and Differentiation 4. Solving Equations	Week: 9 Hours: 3 - 5 Instructor-led