



Training Outline



Cloud Computing and Artificial Intelligence

Aurora Technology Development Inc.

Cloud Computing and Artificial Intelligence

Course Outline

1: Fundamentals of Frontend Development - 1 day

- Introduction & overview, latest JavaScript
- Overview of agile methodologies, tools, and best practice
- TypeScript, the next of JavaScript
- Frontend Development - the face of your business: ReactJS advance: hooks

2. Fundamental of Backend Development - 1 day

- Decomposite NodeJS
- NodeJS + TypeScript
- ExpressJS deep dive
- HTTP security fundamental
- Hardening your application
- From backend to microservice - architecture & interconnectivity

3: Fundamentals of Database - SQL V.s. NoSQL, MySQL, MongoDB - 1 day

- DB solutions at a glance - postgresSQL, MySQL, MSSQL, Oracle SQL, MongoDB, Redis, Cassandra
- Putting Database in codebase & introduction to ORM

4: Fundamentals of Cloud computing - Cloud development on AWS - 1 day

- Introduction & history to Cloud computing and AWS
- AWS EC2, S3, serverless function, elastic beanstalk and other applicable features
- Migrating your application to cloud

5: AWS databases planning and designing - 1 day

- Planning and Designing database s on AWS
- Database performance improvement - horizontal improvement
- Database performance improvement - vertical improvement
- Hosting databases on Amazon EC2 (Amazon Elastic compute cloud)
- Databases management and maintenance s on Cloud

6: AWS service and resources management - 2 days

- Service continuity on AWS
- Managing your resources on AWS
- Budget control on AWS

7: Build and maintain Kubernetes cluster on AWS-2 days

- Introduction to container
- Dockize your application
- Managing multiple dockers on a single instance
- Kubernetes on a glance
- Using AWS to build and maintain your Kubernetes cluster

8: Automate coding - build CI/CD pipeline on AWS - 2 days

- Define and design your own pipeline
- Automate the code testing with GitHub actions
- Automate the build process with Ansible
- Automate the deployment process with Jenkins
- Using AWS pipeline to manage everything about automation

9: Managing and collaborating in the remote workplace era - 1 day

- Remote workplace vs. office workplace
- Realign on corporate culture
- Building a safe and ergonomic home office
- Managing distant team collaborations
- How to keep employees engaged and up to date with tools

10: AI introduction and preparation - the planning phase - 1 day

- Why do you need an AI
- AI's power and constraints
- Define success criteria
- How to collect data to train AI
- How to make business decisions based on AI findings

11: Empower an AI with AWS, GCP and Azure - the research phase -1 day

- Pick the right AI for the right job
- How to build a POC in 5 days
- Expectation management across the company to buy in

- Empower your AI with AWS, GCP and Azure

12: Build an Artificial Intelligence at your disposal - the development phase - 2 days

- Python introduction
- Python AI packages at a glance
- Best practice to turn POC into production-grade codes
- Implementing a CV application
- Implementing a NLP application

13: Improve Artificial Intelligence- the maintenance phase - 2 days

- Collecting customer live data in your application
- Digitalize offline customer engagement
- Complete the cycle - best practice to train and improve your model
- Data visualization with Tableau
- Case study - travel industry uses AI to improve customer engagement
- Case study - Finance industry uses AI to automate regulatory and compliance

Tuition fee: \$8,700 per person