

האוניברסיטה העברית בירושלים  
THE HEBREW UNIVERSITY OF JERUSALEM  
الجامعة العبرية في اورشليم القدس



Jan 21, 2023

Alexandre Beaulne

has successfully completed

Build a Modern Computer from First Principles:  
From Nand to Tetris (Project-Centered Course)

an online non-credit course authorized by Hebrew University of Jerusalem and offered  
through Coursera

Shimon Schocken  
Associate Professor  
Computer Science

Professor Noam Nisan  
School of Computer Science and Engineering  
The Hebrew University of Jerusalem

COURSE  
CERTIFICATE



Verify at:  
<https://coursera.org/verify/K32QCXK2ZSXP>

Coursera has confirmed the identity of this individual and their  
participation in the course.

# VERIFIED

CERTIFICATE *of* ACHIEVEMENT

# ColumbiaX

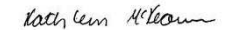
This is to certify that

## Alexandre Berube Beaulne

successfully completed and received a passing grade in

## DS101X: Statistical Thinking for Data Science and Analytics

a course of study offered by ColumbiaX, an online learning initiative of Columbia University through edX.



**Kathy McKeown**

Director of the Data Science Institute  
Henry and Gertrude Rothschild Professor of Computer Science

*Columbia University*



**Patricia Culligan**

Associate Director of the Data Science Institute  
Professor of Civil Engineering

*Columbia University*



**Garud Iyengar**

Professor of Industrial Engineering and  
Operations Research, Chair of the Department

*Columbia University*



**Tian Zheng**

Associate Professor of Statistics

*Columbia University*

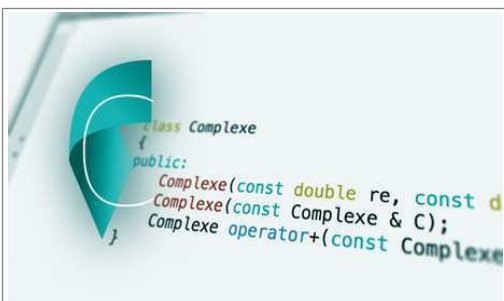
MAY 13, 2015

# Statement of Accomplishment

WITH DISTINCTION

## ALEXANDRE BEAULNE

A TERMINÉ AVEC SUCCÈS L'OFFRE EN LIGNE DE L'ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE DE



### Introduction à la programmation orientée objet (en C++)

Le cours suivi propose une introduction aux concepts de base de la programmation orientée objet tels que : encapsulation et abstraction, classes/objets, attributs/méthodes, héritage, polymorphisme, ... en les illustrant dans la syntaxe du langage C++.

DR JAMILA SAM  
ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

DR JEAN-CÉDRIC CHAPPELIER  
ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

April 8th, 2015

# Alexandre Beaulne

has successfully completed a free online offering of

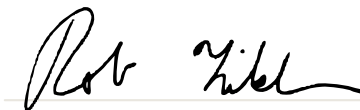
## Statistical Learning

In order to receive a statement of accomplishment, participants were required to score 50 or more of the 100 points attainable on the online quizzes.



**Trevor Hastie**

John A Overdeck Professor of Statistics  
Stanford University



**Rob Tibshirani**

Professor in Health Research and Policy and Statistics  
Stanford University

**PLEASE NOTE:** SOME ONLINE COURSES MAY DRAW ON MATERIAL FROM COURSES TAUGHT ON-CAMPUS BUT THEY ARE NOT EQUIVALENT TO ON-CAMPUS COURSES. THIS STATEMENT DOES NOT AFFIRM THAT THIS PARTICIPANT WAS ENROLLED AS A STUDENT AT STANFORD UNIVERSITY IN ANY WAY. IT DOES NOT CONFER A STANFORD UNIVERSITY GRADE, COURSE CREDIT OR DEGREE, AND IT DOES NOT VERIFY THE IDENTITY OF THE PARTICIPANT.

Authenticity of this statement of accomplishment can be verified at <https://verify.lagunita.stanford.edu/SOA/6e52fb1e052b417b803f464b3373be8e>

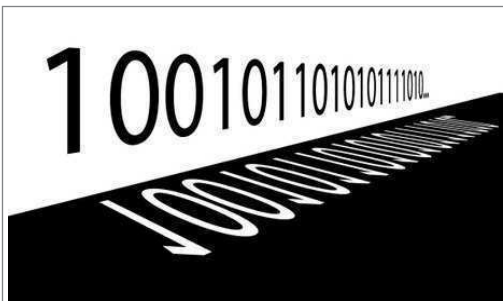
JANUARY 20, 2015

# Statement of Accomplishment

WITH DISTINCTION

## ALEXANDRE BEAULNE

POUR AVOIR SUIVI AVEC SUCCÈS L'ENSEMBLE DE LA FORMATION COURSERA.



### Conception et mise en œuvre d'algorithmes.

Modéliser un problème, concevoir un algorithme de résolution et en proposer une implémentation correcte en Java. Du problème à sa solution, ce cours combine approches pragmatique, pratique et théorique de l'informatique.

DOMINIQUE ROSSIN,  
CHERCHEUR CNRS  
PROFESSEUR À L'ÉCOLE POLYTECHNIQUE

PROFESSEUR À L'ÉCOLE POLYTECHNIQUE,  
PRÉSIDENT DU DÉPARTEMENT D'INFORMATIQUE

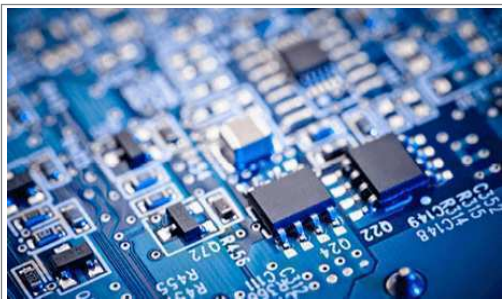
ATTENTION : CE MODULE DE FORMATION EN LIGNE S'INSPIRE FORTEMENT DE COURS DE L'ÉCOLE POLYTECHNIQUE, IL N'EST TOUTEFOIS ÉQUIVALENT À AUCUN COURS DISPENSÉ DANS CET ÉTABLISSEMENT DANS LE CADRE D'UN CURSUS DIPLÔMANT. CE CERTIFICAT N'ATTESTE EN AUCUN CAS QUE LA PERSONNE SUSNOMMÉE A ÉTÉ INSCRITE À L'ÉCOLE POLYTECHNIQUE EN TANT QU'ÉLÈVE OU ÉTUDIANT. IL NE TÉMOIGNE QUE DE LA PARTICIPATION DE CETTE PERSONNE AU MODULE DE FORMATION. CE CERTIFICAT NE LUI CONFÈRE NI MENTION, NI CRÉDIT, NI DIPLÔME DE L'ÉCOLE POLYTECHNIQUE. ENFIN, IL NE PERMET PAS DE GARANTIR L'IDENTITÉ DE LA PERSONNE SUSNOMMÉE.

OCTOBER 01, 2014

# Statement of Accomplishment

## ALEXANDRE BEAULNE

HAS SUCCESSFULLY COMPLETED THE ONLINE OFFERING OF



### The Hardware/Software Interface

This undergraduate course covers basic principles of the hardware/software interface including hardware architecture, memory hierarchy, x86 assembly programming, and C vs. Java concepts.

JERRE D. NOE PROFESSOR  
COMPUTER SCIENCE AND ENGINEERING  
UNIVERSITY OF WASHINGTON

ASSOCIATE PROFESSOR  
COMPUTER SCIENCE AND ENGINEERING  
UNIVERSITY OF WASHINGTON

THE ONLINE OFFERING NOTED ABOVE IS NOT A COURSE OFFERED BY THE UNIVERSITY OF WASHINGTON. THIS STATEMENT OF ACCOMPLISHMENT IS NOT ISSUED BY THE UNIVERSITY OF WASHINGTON AND DOES NOT CONFIRM OR IMPLY ENROLLMENT AT THE UNIVERSITY OF WASHINGTON. THE UNIVERSITY OF WASHINGTON AWARDS NO CREDIT FOR THE ABOVE OFFERING AND MAINTAINS NO RECORD OF THE OFFERING OR OF ANY STUDENT'S ENROLLMENT IN THE OFFERING.

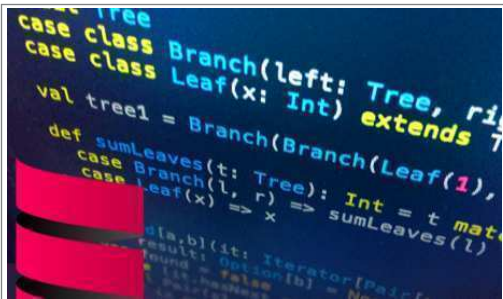
JULY 16, 2014

# Statement of Accomplishment

WITH DISTINCTION

## ALEXANDRE BEAULNE

HAS SUCCESSFULLY COMPLETED THE ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE'S ONLINE OFFERING OF



### Functional Programming Principles in Scala

This advanced undergraduate programming course covers the principles of functional programming using Scala, including the use of functions as values, recursion, immutability, pattern matching, higher-order functions and collections, and lazy evaluation.



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MARTIN ODERSKY  
PROFESSOR OF COMPUTER SCIENCE  
ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

DISCLAIMER : THIS ONLINE OFFERING DOES NOT REFLECT THE ENTIRE CURRICULUM OFFERED TO STUDENTS ENROLLED AT ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE. THIS DOCUMENT DOES NOT AFFIRM THAT THIS STUDENT WAS ENROLLED AS A ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE STUDENT IN ANY WAY; IT DOES NOT CONFER A ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE CREDIT; IT DOES NOT CONFER A ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE DEGREE OR CERTIFICATE; AND IT DOES NOT VERIFY THE IDENTITY OF THE INDIVIDUAL WHO TOOK THE COURSE.

APRIL 18, 2014

# Statement of Accomplishment

## ALEXANDRE BEAULNE

HAS SUCCESSFULLY COMPLETED THE ONLINE OFFERING OF



### Computer Networks

This course introduces the fundamental problems of computer networking, from sending bits over wires to running distributed applications, and explores the design strategies used to solve computer networking problems.

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DAVID WETHERALL  
PROFESSOR, COMPUTER SCIENCE & ENGINEERING,  
UNIVERSITY OF WASHINGTON

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JOHN ZAHORJAN  
PROFESSOR, COMPUTER SCIENCE & ENGINEERING,  
UNIVERSITY OF WASHINGTON

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ARVIND KRISHNAMURTHY  
ASSOCIATE PROFESSOR, COMPUTER SCIENCE &  
ENGINEERING, UNIVERSITY OF WASHINGTON



DECEMBER 24, 2013

# Statement of Accomplishment

## ALEXANDRE BEAULNE

HAS SUCCESSFULLY COMPLETED THE ONLINE OFFERING OF

```
fun append (xs, ys) =  
  if null xs  
  then ys  
  else (hd xs):: append (tl xs, ys)  
  
fun map (f, xs) =  
  case xs of  
    [] => []  
  | x :: xs' => (f x)::(map (f, xs'))  
  
val a = map (increment, [4,8,12,16])  
val b = map (hd, [[8,6],[7,5],[3,0,9]])
```

### Programming Languages

This course investigates the basic concepts behind programming languages, with a strong emphasis on the techniques and benefits of functional programming along with many other topics.



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DAN GROSSMAN  
ASSOCIATE PROFESSOR  
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
UNIVERSITY OF WASHINGTON

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# UDACITY

September 08, 2013

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This is to certify that

**Alexandre Beaulne**

---

Has successfully completed

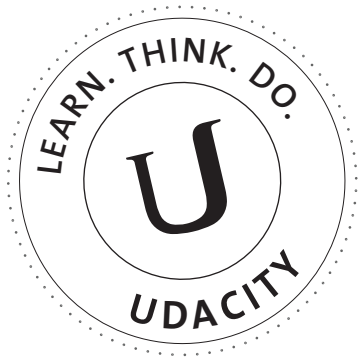
**Software Testing**

**How to Make Software Fail**



With Highest Distinction

---



John Regehr

## Statement of Accomplishment

# Algorithms: Design and Analysis, Part I

Name: Alexandre Beaulne

Email: alexandre.beaulne@gmail.com

Congratulations! You have successfully completed the free online offering of Design and Analysis of Algorithms I, offered June through July, 2012. To successfully complete this free online class, students were required to watch lectures, complete quizzes and automated exercises, and take a final exam. According to our automated system, your scores on these components were as follows:

- Problem Sets:	47.0	out of a maximum of 48
- Programming Exercises:	27.0	out of a maximum of 36
- Exams:	24.6	out of a maximum of 30
- Scaled Total:	86.2	out of a maximum of 100

We thank you for your interest in studying algorithms, and look forward to seeing you again soon.

Sincerely,



Tim Roughgarden

Associate Professor of Computer Science

**Please note:** This online offering of Algorithms: Design and Analysis, Part I, does not reflect the entire curriculum offered to students enrolled at Stanford University. This statement does not affirm that you were enrolled as a Stanford student in any way; it does not confer a Stanford grade; it does not confer Stanford credit; it does not confer a Stanford degree or a certificate; and it does not verify the identity of the individual who took the course.



DECEMBER 12, 2012

# Online Course Statement of Accomplishment

## ALEXANDRE BEAULNE

HAS SUCCESSFULLY COMPLETED A FREE ONLINE OFFERING OF THE FOLLOWING COURSE  
PROVIDED BY STANFORD UNIVERSITY THROUGH COURSERA INC.



### Machine Learning

Congratulations! You have successfully completed the online Machine Learning course ([ml-class.org](http://ml-class.org)). To successfully complete the course, students were required to watch lectures, review questions and complete programming assignments.

A handwritten signature in blue ink that reads "Andrew Ng".

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ASSOCIATE PROFESSOR ANDREW NG  
COMPUTER SCIENCE DEPARTMENT  
STANFORD UNIVERSITY

PLEASE NOTE: SOME ONLINE COURSES MAY DRAW ON MATERIAL FROM COURSES TAUGHT ON CAMPUS BUT THEY ARE NOT EQUIVALENT TO ON-CAMPUS COURSES. THIS STATEMENT DOES NOT AFFIRM THAT THIS STUDENT WAS ENROLLED AS A STUDENT AT STANFORD UNIVERSITY IN ANY WAY. IT DOES NOT CONFER A STANFORD UNIVERSITY GRADE, COURSE CREDIT OR DEGREE, AND IT DOES NOT VERIFY THE IDENTITY OF THE STUDENT.

## Statement of Accomplishment

**Login ID:** alexandre.beaulne@gmail.com

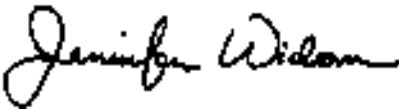
**Name:** Alexandre Beaulne

Congratulations! You have successfully completed the free online offering of Introduction to Databases, offered October through December, 2011. To successfully complete this free online class, students were required to watch lectures, complete quizzes and automated exercises, and take a midterm exam and a final exam. According to our automated system, your scores on these components were as follows:

- Quizzes: **67** out of a maximum of **67**
- Exercises: **71** out of a maximum of **71**
- Exams: **34** out of a maximum of **38**
- Scaled total (exercises doubled, exams tripled): **311** out of a maximum of **323**

We thank you for your interest in studying databases, and for participating in our ambitious experiment to deliver quality educational content to a worldwide audience.

Sincerely, Jennifer Widom



**Please note:** This online offering of Introduction to Databases does not reflect the entire curriculum offered to students enrolled at Stanford University. This statement does not affirm that you were enrolled as a Stanford student in any way; it does not confer a Stanford grade; it does not confer Stanford credit; it does not confer a Stanford degree or a certificate; and it does not verify the identity of the individual who took the course.



THIS IS TO ACKNOWLEDGE THAT

**alexandre beaulne**

IS CERTIFIED IN

**C++ Fundamentals**

AND HAS SUCCESSFULLY COMPLETED ALL REQUIREMENTS AND CRITERIA FOR SAID CERTIFICATION THROUGH EXAMINATION ADMINISTERED BY BRAINBENCH.

BRAINBENCH IS THE WORLD'S LARGEST PROVIDER OF HIGH-QUALITY, STRUCTURED, SKILLS CERTIFICATION EXAMS ON THE INTERNET. BRAINBENCH CERTIFICATIONS ARE RECOGNIZED BY MAJOR CORPORATIONS AND CERTIFIED PROFESSIONALS ARE APPLYING THEIR SKILLS IN MORE THAN 100 COUNTRIES WORLDWIDE.

THIS CERTIFICATION EARNED ON

**March 9, 2012**

NOEL SITZMANN  
CHIEF EXECUTIVE OFFICER

RANDY KRAEMER  
DIRECTOR OF CERTIFICATION

SARA LAMBERT  
CHIEF SCIENTIST

This certification may be verified at [www.brainbench.com](http://www.brainbench.com) using the certificate holder's transcript ID. 9871554



THIS IS TO ACKNOWLEDGE THAT

**alexandre beaulne**

IS CERTIFIED IN

**Java 6 Fundamentals**

AND HAS SUCCESSFULLY COMPLETED ALL REQUIREMENTS AND CRITERIA FOR SAID CERTIFICATION THROUGH EXAMINATION ADMINISTERED BY BRAINBENCH.

BRAINBENCH IS THE WORLD'S LARGEST PROVIDER OF HIGH-QUALITY, STRUCTURED, SKILLS CERTIFICATION EXAMS ON THE INTERNET. BRAINBENCH CERTIFICATIONS ARE RECOGNIZED BY MAJOR CORPORATIONS AND CERTIFIED PROFESSIONALS ARE APPLYING THEIR SKILLS IN MORE THAN 100 COUNTRIES WORLDWIDE.

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THIS IS TO ACKNOWLEDGE THAT

**alexandre beaulne**

IS CERTIFIED IN

**SQL (ANSI) Fundamentals**

AND HAS SUCCESSFULLY COMPLETED ALL REQUIREMENTS AND CRITERIA FOR SAID CERTIFICATION THROUGH EXAMINATION ADMINISTERED BY BRAINBENCH.

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THIS CERTIFICATION EARNED ON

**March 9, 2012**

Handwritten signature of Noel Sitzmann in black ink.

NOEL SITZMANN  
CHIEF EXECUTIVE OFFICER

Handwritten signature of Randy Kraemer in black ink.

RANDY KRAEMER  
DIRECTOR OF CERTIFICATION

Handwritten signature of Sara Lambert in black ink.

SARA LAMBERT  
CHIEF SCIENTIST

This certification may be verified at [www.brainbench.com](http://www.brainbench.com) using the certificate holder's transcript ID. 9871554



# **BLOOMBERG ESSENTIALS TRAINING PROGRAM**

This is to acknowledge that

**ALEXANDRE BEAULNE**

has successfully completed

**Commodity Essentials**

in

02/2011

of the

**BLOOMBERG  
ESSENTIALS  
TRAINING PROGRAM**

Congratulations,

A handwritten signature in black ink, reading "Tom Secunda". The signature is fluid and cursive, with the first name "Tom" and last name "Secunda" clearly legible.

Tom Secunda

**Bloomberg**

# BLOOMBERG ESSENTIALS TRAINING PROGRAM

This is to acknowledge that

**ALEXANDRE BEAULNE**

has successfully completed

**Fixed Income Essentials**

in

02/2011

of the

**BLOOMBERG  
ESSENTIALS  
TRAINING PROGRAM**

Congratulations,

A handwritten signature in black ink, reading "Thomas F. Secunda". The signature is fluid and cursive, with a large initial 'T' and 'S'.

Tom Secunda

**Bloomberg**

# BLOOMBERG ESSENTIALS TRAINING PROGRAM

This is to acknowledge that

**ALEXANDRE BEAULNE**

has successfully completed

**FX Essentials**

in

02/2011

of the

**BLOOMBERG  
ESSENTIALS  
TRAINING PROGRAM**

Congratulations,

A handwritten signature in black ink, reading "Tom Secunda". The signature is fluid and cursive, with the first name "Tom" and last name "Secunda" clearly legible.

Tom Secunda

**Bloomberg**

# BLOOMBERG ESSENTIALS TRAINING PROGRAM

This is to acknowledge that

**ALEXANDRE BEAULNE**

has successfully completed

**Equity Essentials**

in

02/2011

of the

**BLOOMBERG  
ESSENTIALS  
TRAINING PROGRAM**

Congratulations,

A handwritten signature in black ink, reading "Tom Secunda". The signature is fluid and cursive, with the first name "Tom" and last name "Secunda" clearly legible.

Tom Secunda

**Bloomberg**