# Henrique Rocha

Telecommunications and Informatics

#### about

Henrique Duarte Lopes Rocha

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### languages

portuguese (native) english (fluent)

## programming

**V** Java

(Android, PlayFramework, LWJGL, MapReduce, GWT, AWS), C, C++ (OpenGL), C# (XNA, Windows Forms, WPF, Ipsolve), VB, Python, Scala, Scheme, HTML, CSS (Bootstrap), JavaScript (jQuery, AJAX, WebGL, WebRTC), PHP (Wordpress), GLSL, HLSL.

#### databases

DynamoDB, MongoDB, MySQL, Neo4j, PostgreSQL, SQLite.

#### soft skills

Time Management Problem-Solving Team Player Self Confidence Adaptability

## education

2013–now **Master of Science** Instituto Superior Técnico - Taguspark Telecommunications and Informatics Engineering (Expected Grade: 16 in 20)

2009–2014 **Bachelor of Science** Instituto Superior Técnico - Taguspark

Communication Networks Engineering (Final Grade: 13.2 in 20)

2006–2009 **Secondary School** Escola Secundária Luís de Freitas Branco, Paço de Arcos

Science & Technology

## **experience**

Web Development  Development of an architecture for a chat application. Experience with Android, PlayFramework and MongoDB.  Bullray  Development of an architecture for a chat application. Experience with Android, PlayFramework and MongoDB.	cation. Experience with Android, PlayFr	Bullray mework
Scientific Initiation Scholarship Frontend Development for Provide Results's Bimk project. Experience with PlayFramework, Review API and GIT.	nk project. Experience with PlayFramew	INESC ork, Revit
Scientific Initiation Scholarship  months)  Programming Decision Analysis Software (MACBETH). Development of an algorithm to sugges judgements based on past decisions using lpsolve.		CEG-IST suggest
Summer Work weeks) Frontend development for Decision Analysis Software using ASP.NET.	ftware using ASP.NET.	LCG
Pizza Night Competition  2º place on Windows Phone Category with Infinity Edge game.  Microsoft Lisbon Experience		perience
3 2006 <b>Garbage Collector</b> Jovens em Movimento, Oeira:	Jovens em Movime	to, Oeiras

Cleaning and maintenance of public spaces.

## **applications**

**Bomb Raider** 

(1 month)

2015

	Bomb Raider is a simple singleplayer and multiplayer game where the mies in the map.	e goal is destroying all ene-
2013	<b>OpenGlobe</b> Modeling Earth surface with GPS devices and topographic collected predict satellites position through ephemeris data.	Instituto Superior Técnico data. It is also possible to
2012	<b>Infinity Edge (Windows Phone 7)</b> First Person Shooter with spaceships.	windows marketplace
2011	<b>Era of Empires</b> 3D environment generator and Real Time Strategy game engine.	Personal Project

## interests

3D Studio Max, Photoshop, Game Development, Web Design, Network Security, Jogging and Yoga.

## grades

## **Bachelor - Communication Networks Engineering**

#### **Engineering Sciences**

- Linear Algebra 10
- Computational Mathematics 10
- Differential and Integral Calculus I 11
- Theory of Computation 13
- Mechanics and Waves 13
- Differential and Integral Calculus II 10
- Electromagnetism and Optics 13
- Complex Analysis and Differential Equations 13
- Probabilistic and Statistics 12

#### **Electrical Engineering Sciences**

- Introduction to Electronic Circuits and Systems 12
- Electronics of Embedded Systems 13
- Systems and Signals 17
- Propagation and Antennas 14
- Comunications Systems 13

#### Computer Science Engineering

- Introduction to Algorithms and Data Structures 18
- Foundations of Programming 15
- Introduction to Human-Computer Interaction 18
- Object-Oriented Programming 13
- Operating Systems 14
- · Databases 14
- Distributed Systems 15
- Software Engineering 16

#### Soft-Skills

- Management 10
- Independent Studies A 13
- Oral and Written Communication 10

#### Electrical Engineering and Computer Science

- Digital Systems 11
- Computer Architecture 12
- Computer Networks 12
- Network Architectures 12
- Network Management and Security 15

## Master - Telecommunications and Informatics Engineering

Mobile, Peer-To-Peer and Cloud Applications

• Cloud Computing - 15

- Mobile Computing 15
- Peer-to-Peer Systems and Overlay Networks 15

#### Entrepreneurial Leadership, Organization, Economy and Management

• Decision Support Models - 14

#### Common Branch

- Forensics Cyber-Security 16
- Middleware for Distributed Internet Applications 14
- Telecommunications and Positioning Satellite Systems 17
- Performance Evaluation and Dimensioning of Networks and Systems 15
- Web Data Extraction and Analysis 16

#### Master Thesis

• Master Project in Telecommunications and Computer Engineering - 17

#### **Elective Courses**

- Services Engineering 17
- Database Administration and Tuning 15