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MENELAOS KOTSOLLARIS

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EMPLOYMENT

Research Assistant — **University of New Brunswick** — **Winter 2016 - Present**

- Implementation of several data structures from scratch in the Java stack.
- Comparison and Complexity analysis of the implemented data structures based on their efficiency.
- Implementation of a Web and Mobile applications using Android, Node.JS and Angular in TypeScript.

Full Stack Web Developer — **Natural Resources Canada** — **Summer 2015 – Winter 2016**

- Implemented a RESTful API using PHP in a TDD environment using PHPUnit.
- Implemented a responsive Website using JQuery, AJAX, HTML5 and Bootstrap.

Full Stack Developer — **Dentist Education Institute** — **February 2011 – June 2014**

- Implemented a website from scratch using JQuery, HTML5, PHP and Adobe Flash Studio.
- Implemented a program in Java for email parsing and categorization based on the client's preferences.
- Redesigned the database in MySQL following the Database Normalization process.

EDUCATION

New Brunswick, Canada — **University of New Brunswick** — **Fall 2015 – Present**

- **M.Sc.** in GeoInformatics; GPA: 3.8/4.3; Expected Graduation: May 2017
- Thesis: Implementation of a Web 3D map that hosts billions of images and handles multiple requests/second.
- Coursework: Web Development, UX Design, Big Data, GIS, RESTful, Image Processing, Deep Learning etc.
- Developed multiple projects using the following frameworks: Java, TypeScript, JQuery, PHP, HTML5, PostgreSQL.

Athens, Greece — **University of Piraeus** — **Fall 2011 – Summer 2015**

- **B.Sc.** in Computer Science with Minor in Artificial Intelligence. First Class (Honors) Degree. Average: 9.16/10.00.
- Thesis: "GeoLearning" - A Modern Educational Application for teaching Geography (Awarded as best thesis 15').
- Coursework: Object Oriented Programming, Software Lifecycle, Computer Architecture, Algorithms, Artificial Intelligence, Comparison of Learning Algorithms, Computational Theory.
- Developed several projects with the following frameworks: Android, Java, C++, C#, C++, MySQL, HTML5.

CORE PROJECTS & TECHNICAL EXPERIENCE

- **3D Web Management Framework** (2017): A Web Framework that loads billion of tile images to create a virtual 3D Map by using backend data structures developed from scratch. The framework is accessible through Virtual Reality boards (Oculus Rift, Google cardboard), browsers (Google Chrome, Mozilla) and all desktop clients.
- **Symmetry** (2016): Android drawing application providing all basic tools of computer graphics. Implemented a custom Draw View which supports drawing multiple shapes that were developed from scratch. The implementation includes the development of CS-Graphics Algorithms like Bresenham's.
- **The Maze Runners** (2015): Android Artificial Intelligence Game. A multi agent game of Distributed AI for solving random-generated mazes. All algorithms were implemented from scratch with emphasis on using data structures to optimize performance.

ADDITIONAL EXPERIENCE AND AWARDS

- **M.Sc. Full Time Sponsorship - NSERC (2015 - 2017):** Full Time sponsorship for Master's degree.
- **Canadian Conference in Engineering – 1st place award (2016)**: Competition with 25 Canadian universities.
- **First Honors (Excellent) Degree in Computer Science (2015):** Highest average of the '15 undergraduate Computer Science class, within the top 1% of the department's alumni in the University of Piraeus.

LANGUAGES AND TECHNOLOGIES

- Java, Android, JavaScript, C#, PHP, ASP.NET, SQL, JavaScript, HTML5, C++, Matlab.
- Intellij IDEA, Android Studio, Visual Studio, PHPStorm, WebStorm, Microsoft SQL Server, XCode.

RECENT HACKATHONS & CONFERENCES

- **PennApps-XV, University of Pennsylvania 17', Philadelphia - PA, "ShopRight":** A Mobile application that calculates and visualizes useful insights about shopping – *Google Reverse Image, Azure, Android, Node.js, Linux.*
- **John Hopkins University Hack 16', Baltimore – MD, "Echo with Me":** A smart hardware that helps diagnose muscular degenerative diseases like ALS or paralysis – *ML, AWS, Node.js, Python, Android, ReactJS, Firebase*.
- **Grand MIT Hack 16', Boston – MA, "Dobby!":** An anti-anxiety network for stress relief – *AI, NLP, JQuery, HTML5*.