Thomas BARRAS

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Employment

2016 Summer IRIT/CNRS Intern	**Cross-platform mobile app**	2-person project

- Implemented a cross-platform mobile app for client drawing recognition with ionic2 (Angular2 + Cordova),Node.JS + Express, MongoDB.
- Suggested to work with web technologies to build cross-platform apps.

Education

2016–2017 Master — **Computer Science** — UQAC, Canada
- Artificial Intelligence, Data mining, Big data, Security, Cryptography, Algorithms, Data structures, Web semantic

2014–2017 Master — **Computing and Applied Mathematics** — ENSEEIHT, France
- Functional programming, OOP, Operating Systems, Algorithms, Data structures, Web, Semantic and languages translations, Concurrency, Meta-Programming, Numerical Optimization, Linear algebra, Hilbertian analysis, Differential Calculation, Integration, Probabilities, Statistics

Projects

2017 — Cross-platform desktop app — 1-person project
- Implemented a cross-platform desktop app to search items around places and display the description from Wikipedia. (Electron + MEAN stack + SPARQL DBpedia queries)

2017 — Constraint Satisfaction Solver — 1-person project
- Implemented a graph constraints-based solver and applied it on sudoku game. (Python + OCaml)
- Reduce number of backtrack calls by x600.

2016 — Neural-cryptography — 1-person project
- Implemented a cryptographic protocol to exchange key based on neural networks synchronization. (Python)
- Prevent quantum computing with algorithm that is not based on any number theory.

2016 — C# compiler — 2-person project
- Implemented a C# compiler to generate simplified assembly language. (Java)

2016 — Web live Editor — 1-person project
- Implemented a web live editor to write, previsualise, save and share web projects. (Java Spring + Angular1)
- Reduced development time by making Yeoman generator to build REST API.

Technologies

Languages **Java, Go, Javascript, OCaml, C++, C, Python**

Frameworks **NodeJS, AngularJS, MongoDB, TensorFlow**