Abdellah Aznag

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Application for a PhD in Operations Research

Education

École Polytechnique - Cycle Ingénieur Polytechnicien   **Palaiseau, France**
Third year, One of France's leading universities in engineering   *2017-Present*
Master's level program in Applied Math and Computer Science, GPA: 3.8/4.0, Major GPA: 3.94/4.0
Relative Coursework: Operations Research - Game Theory - Statistics - Algorithm Design and Analysis -
Monte Carlo Methods and Stochastic processes

Preparatory program - Lycée Pierre de Fermat   **Toulouse, France**
MPSI-MP/Computer Science, GPA 4.0/4.0*   *2015–2017*
A 2-year program leading to competitive entrance examinations to the Grandes Ecoles for scientific studies

Lycée Ange Bleu   **El Jadida, Morocco**
Baccalaureat in Sciences awarded with highest honors   *2015*

Project/Research Work

Studying the bit complexity of logarithmically-homogeneous barriers Interior Point Methods   **Palaiseau, France**
Proved that entropic barrier Interior Point Methods are not strongly polynomial   *2019–Ongoing*
Research Project under the supervision of Profs Stephane GAUBERT, Xavier ALLAMIGEON

Studying of the robustness of spectral clustering   **Palaiseau, France**
Implemented rare events simulation techniques to estimate the robustness of spectral clustering   *2019*
Experimental project under the supervision of Prof. Emmanuel GOBET

Estimating the stability number of stochastic power law graphs using copositive programming relaxations   **Paris, France**
Investigating on potentially tractable exact relaxations using sum-of-squares   *2019–Ongoing*
Research Project under the supervision of Prof. Georgina HALL

Determining the attention/focus state of students during class   **Palaiseau, France**
Implemented a statistical decision model which outputs the focus state of students in a classroom   *2018–2019*
Research Project under the supervision of Prof. Jérôme SACKUR

Internship Experience

Novade - Data scientist intern   **Singapore**
Built a RNN model that predicts future workload and accordingly allocates human resources   *Summer 2019*

Apprentis d'Auteuil - Middle school Educator   **Meudon, France**
Worked in a team of educators and overhauled the structure of a middle school for unprivileged students   *2017-2018*

Teaching experience

Ecole Polytechnique Féminine - Teacher Assistant in University   **Paris, France**
Assisted the professor in lectures and taught the recitation class   *2017–2019*
Topics: Advanced measure theory, Topology, Probability, Real Analysis

National Moroccan Olympiads - Tutor   **Morocco**
Participated in designing and teaching the current Moroccan olympiad training curriculum   *2017–2019*
Topics: Combinatorics, Number Theory

Skills

- **Programming:** C++, Java, Python, Matlab
- **Languages:** Arabic (native) French (fluent) English (TOEFL Score: 108) Japanese (Basic)

Outside activities

Math&Maroc, NGO. Promoting Olympiad mathematics - Treasurer   **Palaiseau, France**
Directing Moroccan training program fo International Mathematical Olympiad and maths competitions   *2017-2019*

XProjets, Junior Entreprise of Ecole Polytechnique   **Palaiseau, France**
Designed the quality transition plan of the association and oversaw its implementation and its ISO9001 certifying   *2017-Ongoing*

Notable awards and honors

International Mathematical Olympiad   **Chiang Maï, Thaïland**
Competitor, National rank: 3   *July 2015*

Concours Général   **Rabat, Morocco**
National rank: 3   *July 2015*