

# Ali Rachidi

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## EDUCATION

### Johns Hopkins University

2016-2021

B.S in Computer Science & B.A in International Studies/M.S in Computer Science

Expected: 2020/2021

- Relevant Coursework: Data Structures, Intro Algorithms, Computer Vision, Machine Learning (Online)
- Skills: **Fluent** in Python, C++, Django, Java, PHP, CakePHP, Javascript & JQuery - **Proficient** in Kafka, C, Bootstrap, MySQL, HTML & CSS - **Familiar** with Xcode, R, AWS, SVN & MongoDB - **Trilingual** in French, Arabic and English

## TECHNICAL EXPERIENCE

### Software Engineering Intern, 06/19 to 08/19

BARCLAYS

- Built a data sharing platform between analysts from Barclays and other investment banks using React, SQL, HTML and CSS, supporting folder/file management, user & permission configuration & a quick-look feature
- Developed and tested a chart plotting tool for Barclays analysts using React, SQL, HTML and CSS, allowing the visualisation, analysis, upload and download of financial data, and deployed it using NPM & AWS
- Connected with 30+ professionals across the company and expanded my knowledge of finance, ranging from investment banking, financial instruments, capital markets, FinTech and venture capital

### Data Scientist/Engineer, 05/18 to Present

HOPKINS EXTREME MATERIALS INSTITUTE (HEMI)

- Trained 10 Mask R-CNN models using k-Fold Cross-Validation to detect & classify a melting zone on segmented images of a real time crystal growth
- Evaluated the 10 models using precision & recall scores to eliminate training bias & adjust hyperparameters
- Wrote a labeling script to manually delineate the melting zone on our dataset frames and produce a JSON file
- Wrote a splitter script to extract real-time parameter values (i.e., rotation speed) for each image in our dataset
- Incorporating frames with parameters in a K-Means model to provide user feedback on the quality of the growth
- Designing a data pipeline using Kafka to streamline data flows between MongoDB and our labeling, model training and evaluating scripts

### Full Stack Development Intern, 06/18 to 08/18

ORASES

- Collaborated with a web team of 5 developers, 3 content strategists, 2 UX designers, and a project manager to maximize product efficiency and design a grant management system for the **American Kidney Fund**
- Utilized CakePHP, MySQL, HTML, CSS, Bootstrap, Javascript, AJAX and JQuery to build 4 front and back end portion of website modules (i.e, Announcements, Poverty Guidelines, Grant Requests and Patient Profiles), including analysis, planning, development, testing & maintenance
- Applied UI/UX concepts, cross-browser compatibility, general web functions & standards to improve web experience
- Integrated Single Page Applications with JSON-based REST APIs to create 5 more fluid and responsive web pages

### Data Science Intern, 12/18 to 01/19

CIH BANK

- Developed an OCR algorithm using MSER & OpenCV to extract text from 700 GBs worth of files, mainly PDFs
- Built a web platform for 400+ employees using Python and MongoDB to facilitate files retrieval with keywords

## LEADERSHIP EXPERIENCE

### Entrepreneurship Chair, 09/18 to 11/18

ALPHA KAPPA PSI PROFESSIONAL BUSINESS FRATERNITY

- Guided 3 new members to develop a business model of a **robot delivery** service on campuses
- Developed an 8-week curriculum on entrepreneurship, including lectures, interactive exercises, and speakers
- Maximized seed funding opportunities through networking, elevator pitching, and pitch deck training

## ACTIVITIES & INTERESTS

**Activities:** Students Consulting for Nonprofits, Jam Sessions, Soccer Club

### Interests:

- Social Impact - Distributed health kits & translated German in a German refugee camp; taught English and French in Africa/Latin America; peer-listening certified; aspire to use technology to create social impact
- Sports - Play in Hopkins soccer club; ran 2 half-marathons & trained in a Thai boxing camp in Thailand
- Theater - Completed an improvisation class and gave a final show in New York City