**Bo Cai**

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**QUALIFICATIONS:**

* PhD with broad range knowledge of computer science, statistics and math.
* Full stack developer with 10+ years professional experience in all phases of software development life cycle. Mainly focused on front end development.
* Leadership of coordinating work between business, team members and other teams.
* Ability to solve sophisticated problems with limited time and resources.
* Ability to provide technical guidance to less experienced peers.
* Can be relied on to meet deadlines with high quality deliverables.
* Bilingual abilities (English/Chinese).

**TECHNICAL SKILLS:**

* Strong JavaScript developer with 8+ years professional experience in developing large-scale web applications for financial institution by using **jQuery**, **Angular2**, **React JS** and **Vue JS**.
* Expert in Object Oriented JavaScript and ECMAScript 6 Syntax.
* Experience in CSS pre-processors like **SASS** and **LESS**.
* Proficient in JavaScript debugging with Chrome or **NodeJS** debugger.
* Hands-on experience in HTML5, XHTML, CSS3, HTTP, AJAX, JSON, git, gulp webpack etc.

**PROFESSIONAL EXPERIENCE:**

**Project Lead/Sr Developer at UBS Oct 2017 - Present**

* Single handedly developed portfolio management tool for UBS fixed-income emerging market team. The web-based application helps UBS traders to make trading decisions by solving mixed integer problem with IBM CBC solver. A dashboard was designed to allow traders to manage their portfolio to certain risk exposure. An Angular JS grid was designed to display and modify portfolio data in browser. This work was developed by Angular 2, jQuery UI and Bootstrap. Backend is Django with KDB+.

**Sr Developer at BNP Paribas**  **Aug 2016 - Oct 2017**

* Designed and developed front office task monitoring system for BNP Paribas fixed-income team. An interactive dashboard was designed to allow traders to schedule, monitor and run python or Excel/VBA tasks. If any scheduled tasks were failed to run on time, an email alert will be delivered to author’s email. This tool was developed by Angular2 with Django backend.
* Designed and developed BNP fixed-income custom indices (BNIFELE0, BNIFJLY0) pricing tool. The tool was collecting end of day market data (clean-price, dirty-price, coupon rate, maturity date, CPI, duration, KRD and DTS) from Bloomberg or BNP internal database. It calculated USD hedged indices values by using BNP in-house Westminster libraries**.** It then sent e-verified indices value to Reuters and Bloomberg at end of day (around **5**PM EST).

**Sr Developer at SEC QAU July 2015 - Aug 2016**

* Participated in developing National Examination Tool (NEAT). The tool is designed for assisting SEC examiner to identify trading violations in high-frequency trades such as cross-trade, Rule 105 violation, insider trading, spoofing trade etc. More than 20 models/algorithms were programed to into the tool by either Python code or KDB/Q code. The front-end for this project utilized Agular-JS, D3, high-chart. The back-end for this project utilized Django, Pandas, Python C++ and KDB+.

**Co-founder/Lead Developer at Dealfar LLC Aug 2014 - July 2015**

* Startup focused on developing web-based e-trading and risk management platform. Delivering tools for hedge-fund traders and strategists in tri-state area to assist their day-to-day research and simulation tasks. Projects heavily utilized Node-JS, Angular-JS and jQuery-UI.

**Software Developer at CUNY Research Foundation Sep 2007 - Aug 2014**

* Single handedly developed semiconductor characterization system. The web-based application is designed for user to collect temperature and pressure dependent data from Keithley high-precision instruments and load the data to Mango DB to analyze semiconductor type, carrier density and other characteristics. The front-end technologies utilized were jQuery, jQuery-UI, HTML5, Bootstrap and CSS. Back-ends are Django and Mango DB.
* Designed and developed Transmission Electron Microscopy (TEM) diffraction pattern simulation software. The tool can be used to determine semiconductor crystal structure by analyzing image data collected by TEM diffraction pattern. The underlying theory used for simulation is Bloch wave method. The system was developed with C++ Python on Linux environment.

**EDUCATION:**

* **The Graduate Center of City University of New York** New York, NY

**Ph.D.** Computational Material Science (GPA 3.9/4.0)

**2014**

* **Chinese Academy of Science** Shanghai, China

**M.S.** Computer Science (GPA 3.9/4.0)

**2007**

* **Peking University**, Beijing, China

**B.S.** Physics (GPA 3.8/4.0)

**2005**

**AWARDS/HONORS:**

* PSC-CUNY doctoral research grant 2011,2013
* Full Scholarship CUNY-Graduate Center 2007-2014

**SAMPLE PROJECT:**

* https://github.com/bocai1011/optimizer

**VISA STATUS:**

Green Card