

(917) 679-3449  
wfalkwallace@gmail.com

**William Falk-Wallace**

905 West End Avenue, 62  
New York, NY 10025

## **EDUCATION**

**Columbia University, Columbia College, New York, NY**

**B.A. Candidate 2014**

*Major:* Computer Science; *Concentration:* Physics

*Grade Point Average: Computer Science Major:* 3.55; *Overall:* 3.41

*Relevant Coursework:* Advanced Programming in C, C++, and UNIX; Advanced Data Structures; Cryptography and Coding Theory; Combinatorics and Graph Theory; Computer Networks; Programming Languages and Translators; Artificial Intelligence; UI Design

**Phillips Academy Andover, Andover, MA**

**2006 – 2010**

Honors Student; AP Scholar with Distinction; SAT 99<sup>th</sup> percentile

## **WORK EXPERIENCE**

**Nomis Solutions, Optimization Software Engineer, San Bruno, CA**

**Summer 2013**

- Worked with Optimizations and Engineering teams to develop market financial pricing optimization software
- Developed caching scheme to halve computation time
- Modified computation parameters schema to incorporate expanded variable set enabling more efficient optimization
- Documented computational software data and provided business-friendly interpretation to be used in software demonstrations

**Columbia University, Teaching Assistant for Honors Introduction to Computer Science, New York, NY**

**Spring 2013**

- Support student learning through weekly lectures, office hours, one-on-one meetings, and online forums
- Responsible for grading exams and bi-weekly homework assignments for over seventy students

**Condé Nast, Mobile App Product Development Intern, New York, NY**

**Summer 2012**

- Performed in-depth market and brand research, including use of Adobe Omniture web-analytics software
- Created several mobile app concepts; developed functionality, user interface, and marketing and business strategies
- Participated in cost and design meetings with third-party application design and development firms
- Formally presented app concept and design to magazine brands for review and funding

**Columbia University, Kim Group, Research Assistant, New York, NY**

**2011 – 2012**

- Measured thermopower in graphene on BN samples in helium cryostasis chamber
- Collaborated with international labs; exchanged various fabricated samples for measurement
- Worked frequently in a clean room environment, involving use of strong acids and precision measurement and fabrication equipment including AFM, SEM, e-beam evaporator and cryostat control and measurement software

**WPAA Radio, Director, Andover, MA**

**2008 – 2010**

- Established and enacted goals for streaming online student radio station, including extended hours, advanced programming, and sponsored events and performances
- Managed disk jockey and proctor schedules; read show and board applications; ensured show behavior complied with FCC and school regulations

## **ATHLETICS**

**Columbia Men's Varsity Swim Team, NCAA Division I**

**2010 – 2012**

- Pool Record Holder 200 freestyle Relay
- Best Times: 50 freestyle: 20.89; 100 freestyle: 47.60
- Trained 20+ hours weekly, including 6:30 A.M. practice daily

## **ACTIVITIES AND PROJECTS**

**Columbia University Society of Automotive Engineers**

**2010 – Present**

- As System Head for Controls, participated in the building of a Formula-style racecar for competition with other universities and professional teams worldwide
- Implemented new impact attenuator design, based on EPS insulation foam, to reduce weight and improve the car's efficiency; implementation involved static and quasi-static testing and energy-absorption analysis

**Woodwork and Fine Cabinetry**

**2003 – Present**

- Planned and constructed a 14-foot skiff from raw materials
- Various other projects including tables, games, machines, and bookcases

## **SKILLS**

- Experienced in HTML, CSS, Javascript, TeX, JAVA, C, and UNIX programming languages
- Knowledge of conversational and written French
- Electrical Engineering, computer design and circuit analysis and creation of several projects, including reaction tester and computer-controlled thermal bitmap printer
- Mechanical Engineering, 3-D computer design and mechanical analysis using Creo design software, including innovative pedal-box system and impact attenuator for FSAE car