

## Timothy K. Paine

Contact	11 Lincoln Lane, New Providence, NJ 07974 t.paine154@gmail.com 908.721.1185
Education	<b>Columbia University in the City of New York — New York, NY</b> Fu Foundation School of Engineering and Applied Sciences '15 – M.S. in Computer Engineering Fu Foundation School of Engineering and Applied Sciences '15 – B.S. in Computer Engineering <i>Magna Cum Laude</i> Columbia College '15 – B.A. in Computer Science/Mathematics <b>Sophia University — Tokyo, Japan — Summer 2011</b>
Work Experience	<b>MayStreet</b> — Software Engineer – New York, NY — July 2015 - January 2016 <ul style="list-style-type: none"><li>• Developed low latency market data and order entry systems in C++, C#, Java</li><li>• Developed market data analytics platforms in Python, C++, and R</li></ul> <b>Columbia University</b> — Adjunct Associate Professor — New York, NY — Present <ul style="list-style-type: none"><li>• ENGI1006 Introduction to Computing for Scientists and Engineers (Python) — Summer 2015</li><li>• COMS3101 Programming Languages - Python (Python) — Spring 2016</li></ul> <b>Credit Suisse</b> — Equities/Quantitative Analyst Intern – Tokyo, Japan — Summer 2014 <ul style="list-style-type: none"><li>• Built predictive models for company earnings and price movement using data mining, machine learning, and wavelet analysis (R, Python)</li></ul> <b>IBM</b> — Software Group Intern — Dublin, OH — Summer 2013 <ul style="list-style-type: none"><li>• Developed and tested the front end of a B2B application using various webdev frameworks (Python, javascript)</li><li>• Gained experience in Agile development methodology working for a large multinational company</li></ul> <b>Columbia University</b> — Teaching Assistant — New York, NY — Fall 2012 - Spring 2015 <ul style="list-style-type: none"><li>• Advanced Programming — Spring 2013, Fall 2013</li><li>• Computer Architecture — Spring 2015</li><li>• Fundamentals of Computer Systems — Fall 2013</li><li>• Introduction to Combinatorics and Graph Theory — Fall 2012</li><li>• Introduction to Computing for Scientists and Engineers — Spring 2014, Fall 2014, Spring 2015</li></ul>
Projects	<b>Architecture and Design Lab</b> — Researcher — New York, NY — Summer 2012 - Spring 2015 <ul style="list-style-type: none"><li>• Hardware Design/Verification/Synthesis and FPGA prototyping of a database accelerator</li></ul> <b>Computer Architecture and Security Technology Lab</b> — Researcher — Fall 2014 - Spring 2015 <ul style="list-style-type: none"><li>• Built a hybrid HW/SW RSA unit for Freedom.press in SystemVerilog</li></ul> <b>Embedded Scalable Platforms</b> — Fall 2014 - Spring 2015 <ul style="list-style-type: none"><li>• Built a Hardware Accelerator for Latent Dirichlet Allocation in SystemC</li></ul> <b>Facebook Open Academy</b> — OpenStack Team — Spring 2014 <ul style="list-style-type: none"><li>• Built two-factor authentication for OpenStack's Keystone Identity Service</li><li>• Integrated two-factor authentication with OpenStack's Horizon UI and dashboard</li></ul>

Current projects can be found at <http://tim.paine.nyc>

## Publications

**Q100: The Architecture and Design of a Database Processing Unit.**

L.Wu, A. Lottarini, T. Paine, M. Kim, K.Ross

ASPLOS 2014: Nineteenth International Conference on Architecture Support for Programming Languages and Operating Systems. **IEEE Micro Top Pick.**

## Awards and Honors

**Theodore R. Bashkow Award** — 2014 — Columbia University Computer Science Department

**Margarete E. Kennedy Estate Scholarship** — 2010 — Columbia University

**Jerry and Evelyn Bishop Scholarship** — 2015 — Columbia University

**MSTA Scholarship** — 2015 — Columbia University — Full Tuition for Master's Degree

**Japan Student Services Organization (JASSO)** — 2011 — Sophia University

National Merit, Advanced Placement, and other pre-college honors

Please see <http://tim.paine.nyc>

## References

Available upon request