

Timothy K. Paine

Contact	11 Lincoln Lane, New Providence, NJ 07974 t.paine154@gmail.com 908.721.1185
Education	Columbia University in the City of New York — New York, NY Fu Foundation School of Engineering and Applied Sciences M.S. in Computer Engineering — 2015 B.S. in Computer Engineering, <i>Magna Cum Laude</i> — 2015 Columbia College B.A. in Computer Science/Mathematics — 2015 Sophia University — Tokyo, Japan — Summer 2011
Work Experience	J.P. Morgan Athena Core Developer March 2016 - Present Develop real time analytics platforms (Python, C++, Java, Javascript) MayStreet Software Engineer July 2015 - January 2016 Developed low latency market data and order entry systems (C++, C#, Java) Developed market data analytics platforms (Python, C++, and R) Columbia University Adjunct Associate Professor Summer 2015 - Present ENGI1006 Introduction to Computing for Scientists and Engineers (Python) COMS3101 Programming Languages - Python COMS3101 Programming Languages - C++ COMS1005 Introduction to Computer Science and Programming in Matlab Credit Suisse Equities/Quantitative Analyst Intern – Tokyo, Japan Summer 2014 Built predictive models for company earnings and price movement Leveraged data mining, machine learning, and wavelet analysis (R, Python) IBM Software Group Intern Summer 2013 Developed and tested front ends for B2B applications (Python, javascript) Gained experience in Agile development methodology Columbia University Teaching Assistant Fall 2012 - Spring 2015 Advanced Programming Computer Architecture Fundamentals of Computer Systems Introduction to Combinatorics and Graph Theory Introduction to Computing for Scientists and Engineers

Projects

Architecture and Design Lab

Researcher

Summer 2012 - Spring 2015

Hardware Design/Verification/Synthesis and FPGA prototyping of a database accelerator
(**Verilog**, **SystemVerilog**, **Altera** toolchain and FPGAs, **Synopsys** synthesis tools)

Computer Architecture and Security Technology Lab

Researcher

Fall 2014 - Spring 2015

Built a hybrid HW/SW Cryptography unit in SystemVerilog targeting a custom FPGA board
(**SystemVerilog**, **Altera** toolchain and FPGAs)

Embedded Scalable Platforms

Fall 2014 - Spring 2015

Built a Hardware Accelerator for Latent Dirichlet Allocation in SystemC
(**SystemC**, **Xilinx** toolchain and FPGAs, **Cadence** CtoS/Cynthesizer/Stratus)

Facebook Open Academy

OpenStack Team

Spring 2014

Built two-factor authentication for OpenStack's Keystone Identity Service
Integrated two-factor authentication with OpenStack's Horizon UI and dashboard
(**Python**)

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/Honors

Theodore R. Bashkow Award

Columbia University Computer Science Department — 2014

MSTA Fellowship

Columbia University — 2015 — Full Tuition for Master's Degree

Jerry and Evelyn Bishop Scholarship

Columbia University — 2015

Margarete E. Kennedy Estate Scholarship

Columbia University — 2010

Japan Student Services Organization (JASSO)

Sophia University — 2011

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

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

References

Available upon request