Terran Melconian

Citizenship:	United States of America
Telephone:	747 777 3841
Email:	terran@consistent.org
Location:	Keene, NH

EXPERIENCE AND EDUCATION

2016-present: **Data Science Trainer and Consultant**
I provide one on one data science training to software engineers and business analysts for clients who want to increase staffing for their data science department or make their engineering organization more data-focused. I also provide initial consultations for organizations which are trying to better collect and make use of their data.

2014-2016: **Jobcase Inc, Cambridge MA**
Senior Director of Analytics. Built data science and information retrieval (search) teams; trained software engineers to be data scientists. Achieved double-digit percentage lift in clickout revenue with search algorithm changes and more than 2x lift in social content and engagement. Technically hands-on in both data science and prodution engineering.

2011-2014: **TripAdvisor, Newton MA**
Senior Technical Manager in Operations. Built data warehouse team; deployed stable and reliable operations around Hadoop and Hive, compensating for immature technology. Hands-on with production operations for the core website, performance improvement and problem diagnosis, software release processes, and risk assessment and mitigation. Spoke at industry conferences and helped with recruiting brand.

2008-2011: **Google, Cambridge MA**
Technical Lead for the Google Flights data cache, providing instant results to airfare queries. Previously, Technical Lead for a team of five on the Social Image Search product, which showed personally relevant image results based on social connections. Responsible for architecture, project planning, and team coordination. Engineering tasks included data processing pipelines in the map-reduce framework, extraction and analysis of user and data statistics, and development of Javascript and HTML on top of Java servlets.

2006-2008: **Air Network Simulation and Analysis, Revere MA**
President and Simulation Architect. Designed next generation air transportation simulation architecture on an inherently stochastic framework with flexible runtime fidelity using object-oriented C++. Wrote proposals for both government and industry projects and met with prospects and customers at major airlines and decision support tool vendors.

2004-2007: **Genasun, Boston MA**
Cofounder and Firmware Engineer. Designed digital electronics and wrote microcontroller firmware for high efficiency solar controllers and lithium ion batteries, mostly in Atmel AVR 8-bit assembly. Products contained between one and five micros with 2k to 128k of code space. Part time.

2001-2005: **International Center for Air Transportation, MIT**
Research Engineer. Initial author, technical lead, and architect for the MIT Extensible Air Network Simulation (MEANS) development team of five people on average. Designed and implemented a fast-time event-based C++ simulation of airspace and airports to assess delays and evaluate new scheduling and operational concepts. Developed visualizations and statistical analyses of simulation results.

2000-2001:	**Massachusetts Institute of Technology (MIT), Cambridge MA** S.M. in Aeronautics/Astronautics awarded September 2001. Graduate Research Assistant in the International Center for Air Transportation. Investigated the effects of airline hub congestion on optimal route selection through simulation of operational delays and costs. Studies included economics, game theory, and operations research.
Summer 2000:	**Haven Colocation (HavenCo), UK and Sealand** Buildout of market-leading secure colocation facilities on the micronation Principality of Sealand.
1996-1999:	**Massachusetts Institute of Technology (MIT), Cambridge MA** S.B. in Aeronautics/Astronautics awarded February 2000. Studies in aerodynamics, materials and structures, and control systems. Grade point average 4.9 on 5.0 scale. While an undergraduate, employed to do finite-element modeling and mechanical testing research for the gas turbine laboratory microengine.

SKILLS

Data Science	Skilled at project definition, feasibility assessment, exploration, model fitting, evaluation, production rollout, and A/B testing. Focus on iterating quickly on ideas and rejecting each alternative at the earliest possible stage of development.
Management	Experience managing both staff and projects. Recruited, hired, and developed team members and culture for small to medium teams. Managed inter-organization projects and vendor relationships. Kept software projects on schedule and met deliverables to industry customers and governmental funding agencies. Budgeted and scheduled projects. Specialty in forming new teams by hiring generalists and training for required skills.
Software Architecture	Practiced at all scales from large distributed systems to embedded microcontrollers. Also experienced with parallel numerical simulation, rapid prototyping, and high availability internet operations. Several projects successfully extended beyond original requirements without needing redesign.
Programming Languages	R, SQL, C++, python, Java, Ruby, bash, C, Perl, Atmel AVR Assembly, Javascript
Computer Technologies	Linux (Debian, Red Hat), PostgreSQL, Hadoop, Hive, Apache, Subversion, Git
Electronics	Extensive experience with AVR 8-bit RISC microcontrollers. Limited experience with Cypress and Xilinx CPLDs, Verilog, VHDL. Maintain personal facilities including spectrum analyzer and hot air rework. Amateur radio operator KB1DBT.
Miscellaneous Interests	Machining experience. Composite fabrication. 35mm and large format photography. Black belt in Shao-Lin Kempo Karate. Practitioner certification in neurolinguistic programming (NLP). Home roasting of coffee.

SELECTED CONFERENCE PRESENTATIONS

"Agile Data Science", Agile Alliance Technology Conference 2017

"Hiring your First Data Scientist", Boston Data Festival 2016

"Infrastructure Around Hadoop", Hadoop Summit 2012, with Ed MacKenty