

TIMIR KARIA

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Software engineer, entrepreneur, MBA, strategist, building software, teams, products and companies. I live where commerce, finance, and technology intersect.

PROFESSIONAL EXPERIENCE

INSTAMRKT, AMSTERDAM, NETHERLANDS

Founder / CEO, February 2014 – Present

Founded and funded Instamrkt to bring a new approach to viewing live sports socially. Developed business strategy and product roadmap. Selected technology stack (Python, Tornado, Redis, AWS), designed and implemented full-stack, API-driven platform for a real-time prediction market. Hired an excellent team of engineers and designers to continue development while releasing product frequently and getting market feedback. Managed multiple user-testing sessions. Decomposed architecture to ensure a dynamically scalable, and globally distributed system using AWS (EC2, Route53, load balancing, auto-scaling). Built first front-end iteration using Amperand.js framework and integrated social media connections (OAuth, Facebook, Twitter). Using agile methods and continuous integration the team shipped a product capable of hosting 500k+ users on a single instance in just 3 months. Instamrkt offers a public API for integration into third-party sites, apps, or devices (<http://instamrkt.github.io/slate/>).

TECHNOLOGIES

- Python, JavaScript/NodeJS, ZeroMQ, AWS (EC2, Route53, auto-scaling, SNS, RDS, ElastiCache), Bitcoin/Blockchain, Redis, MySQL, real-time sports data APIs, JSON, NLG, Storm, Social APIs, Amperand.js, gulp, webpack, Docker, OAuth, WebSockets, Bash scripting

CAPITAL K TECHNOLOGY ADVISORY, AMSTERDAM, NETHERLANDS

Consultant, October 2012 – January 2014

Capital K Partners is an advisory firm that offers market analysis, product guidance, software development and consultancy to firms in the financial technology sector. Delivered market analysis and research, operating and process improvement roadmap, performance metrics and benchmarks, technology strategy.

Projects included complete re-architecture of multi-bank quoting platform for foreign exchange trading which increased performance 5x, performance analysis and formal recommendation for re-factoring 500k+ of legacy J2EE code, strategy development for Asian SME lender, market maps and competitive analysis of SME lending marketplaces. Clients included software development firms, hedge funds in search of technology insight, investment advisory firms, and financial services firms.

Capital K Technology also published over 300 issues of a financial services technology newsletter read by high-level trading and technology professionals globally.

TECHNOLOGIES

- C/C++, Python, Java EE, Angular.js, JMS, RabbitMQ, ZeroMQ, Bloomberg API, proprietary bank APIs, scikit-learn, GNU toolchain, GNU Autotools, Oracle, Redis, Hadoop

CAPITAL K PARTNERS, AMSTERDAM, NETHERLANDS

Founder, August 2011 – Present

Capital K Partners is dedicated to fully automated foreign exchange trading using machine and statistical learning techniques. Authored trading system from scratch C/C++/Python optimized for multiple FX venue connectivity and trading. Secured \$5MM capital commitments to fund and returned 5.4% in first month of trading. Implemented learning algorithms and analytics on tick data and reduced processing time by a factor of ~20x using distributed algorithms and AWS. Collected, cleaned and stored up to 6GB of tick data per day across multiple FX venues. Open sourced trading system and analysis algorithms (https://github.com/capitalk/system_k, <https://github.com/capitalk/treelearn>)

TECHNOLOGIES

- C/C++, Python, scikit-learn, FIX, ITCH, OUCH, GNU Autotools, Pandas, HDF, AWS, ZeroMQ

ALL OPTIONS INTERNATIONAL, AMSTERDAM, NETHERLANDS

VP Algorithmic Trading, Executive Committee, November 2007 – May 2011

Built team, technology stack, and trading desk from scratch making 16 international hires in 4 months while installing technology footprint. Adopted new trading system (hardware and software) and ported all strategies from proprietary language to C++ in 6 months reducing tick-to-quote time 24x. Expanded trading across 6 European markets into index futures, equities, and foreign exchange. My team was responsible for fulfilling quoting obligations in over 150 shares, ETFs and ETNs. Reduced trading costs 40% by creating system for managing short stock costs and negotiating better terms with clearing bank. Trimmed data-center footprint 33% by working with network operations to streamline pan-European footprint. Managed technology merger with acquired company. Passed Xetra and Eurex trading examinations in 99th percentile.

TECHNOLOGIES

- C/C++, Bash, 29 West LBM, FIX, ITCH, OUCH, T-Bricks API, KDB, HBase

PORTERO.COM, NEW YORK, NY

CTO, Executive Committee Member July 2005 – October 2007

Portero is a venture funded e-commerce marketplace for pre-owned luxury goods. Raised \$10MM+ in venture funding from groups including Compagnie Financière Richemont SA. Migrated inventory listing from eBay to proprietary commerce site and saved \$10k / monthly in listing fees. Initiated and managed early Google AdWords buy which drove sales up 15% monthly. Optimized product consignment cycle reducing time to list on site by 50%. Managed technology vendors and sourced innovative e-commerce solutions resulting in more agile market approach. Implemented one of the early curated commerce experiences for luxury goods increasing sales by 15%.

SHIELDIP, INC., NEW YORK, NY

CTO, Head of Product January 2002 – June 2005

ShieldIP was founded to build a system for privacy preserving intellectual property protection. Raised \$5MM in venture capital from private investor and VC funds. Led development of system in C++/MSVC to recognize software license violations using patented fingerprinting technology developed by Dennis Shasha and Michael Rabin. Using the Bouncy Castle cryptography library built a secure client/server solution that seamlessly detected software violations by scanning the working set of a running computer for fingerprint matches. Implemented encrypted file system on USB key using ARM for secure digital book distribution. Had the great pleasure of working directly with Turing Award winner Michael O. Rabin implementing his data structures and algorithms. Joint holder of US Patent 7287159.

TEMPEST SOFTWARE, NEW YORK, NY

Senior C++ Developer June 1998 – November 2001

Tempest software developed high-performance message oriented middleware. Built e-commerce platform in C/C++ for HomeDelivery.com (now delivery.com) using Tempest Messenger system. Scaled the HomeDelivery platform to 75k+ customers, 1000+ merchants. Developed rapid solutions for customers including Citibank, Intelsat, Coty Perfumes.

MERRILL LYNCH & CO., NEW YORK, NY

Mortgage Trading Systems Developer July 1995 – November 1997

Developed and supported systems for CMO, Pass Through and ABS trading using Sybase, C++, Rogue Wave and SunOS.

EDUCATION

STATISTICAL LEARNING AND DATA MINING III

Tibshirani and Hastie, Palo Alto, 2011

COLUMBIA BUSINESS SCHOOL, MBA, FINANCE, 2003-2005

- Honors Statistics
- Honors Corporate Finance

NEW YORK UNIVERSITY, BA, COMPUTER SCIENCE & MATH, 1992-1996

- Gallatin Scholar
- Gallatin Mentor
- Deans List 1993 - 1996

BRONX HIGH SCHOOL OF SCIENCE, BRONX NY

PATENTS

Joint holder of US 8327453 B2 - <https://www.google.com/patents/US8327453>

OTHER

Non-executive board member of Hearing Health Science (HHS) BV. HHS is a neuroscience based nutraceutical company offering a solution for long-term noise induced hearing loss.

Volunteer mentor and teacher at Hack Your Future (HYF). HYF is a non-profit institution dedicated to teaching refugees basic programming and web development skills and find them full-time employment.