Curriculum Vitae

Michiel Bertus de Jong

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Born: 21 July 1975 (Numansdorp, NL)

Civil Status: Single

Passport: The Netherlands

ACADEMIC EDUCATION

1999 - 2001 RESEARCH IN ARTIFICIAL INTELIGENCE National institute of mathematics and computer science (CWI), Amsterdam

1994 - 1998 MASTER'S DEGREE IN THEORETICAL COMPUTER SCIENCE University of Leiden, Holland

1993 - 1994 First year of electronic engineering University of Twente, Holland

LANGUAGES

Dutch, English, Spanish, German, French, Indonesian (in that order).

PROGRAMMING LANGUAGES

I have done a lot of JavaScript / nodejs and PHP, had some exposure to Python along the way, but I originally come from a C/C++ background.

SKILLS

Deep understanding of internet technology and FinTech. Critical thinker. Many years of experience developing decentralized, peer-to-peer, and scalable solutions to complex problems.

DECENTRALIZED TECH PROJECTS (LAST SIX YEARS)

10/2016 - present <u>LedgerLoops</u> SOLO PROJECT

The LedgerLoops algorithm is based around a novel concept in FinTech which it introduces: cryptographically triggered IOUs.

Rather than an alternative form of money, LedgerLoops is an alternative *to* money. The website (<u>ledgerloops.com</u>) introduces the "Whispering Merchants" problem as an abstraction of trade flows in the real world. It explains how LedgerLoops is a more decentralized solution than money, requiring everybody to only trust their immediate economic neighbors. The whitepaper defines the LedgerLoops protocol, and an implementation in NodeJS is currently in the making.

08/2015 - 07/2016 Mozilla (Firefox OS) SENIOR SOFTWARE ENGINEER

I joined Mozilla to help set up the data sync team for Firefox OS, a smartphone based entirely on open source web technology.

A server was implemented in Python (Pyramid framework), and a client was implemented in JavaScript (the Firefox OS phone does not support Python). The goal was to synchronize not only browser-related data like bookmarks and saved login passwords, but eventually also photos taken with the Firefox OS phone, and contacts in the phone's addressbook, all in a decentralized way.

10/2014 - 06/2015 <u>IndieHosters</u> CO-FOUNDER

Offering managed personal server hosting to end-users, with the aim to help decentralize the web. Our two-man project made it onto the frontpage of Wired.com.

08/2011 - present <u>Terms of Service</u>; <u>Didn't Read</u> CO-FOUNDER AND TECH LEAD

Rating the terms of service we all agree to by checking a box when signing up for a web service, but which hardly anybody ever reads. The project gained visibility in the mainstream press; I was for instance interviewed about it on National Public Radio (NPR) in the US.

09/2010 - 9/2014 <u>Unhosted</u> / <u>remoteStorage</u> FOUNDER AND PROJECT LEAD

Developing the idea of html5 apps that run entirely client-side, together with decentralized per-user data storage. I a freely available html book "<u>Unhosted Web Apps</u>" and led the development of the remoteStorage standard (now an <u>Internet Draft</u> at IETF), and of the <u>remotestorage.js</u> client library. The project was founded through crowd-funding, gained high visibility within the web tech community, and was awarded several funding grants from NLNet and Wau Holland Stiftung.

PREVIOUS WORK EXPERIENCE

04/2009 - 02/2011 SENIOR SCALABILITY ENGINEER **Tuenti** (Madrid)

Leading the small "backend for core" team, using techniques like eventual consistency, lazy deletes, database sharding, job queues, and memcache in front of mysql to make the tuenti.com site work reliably and fast on its infrastructure of almost 1000 servers. Also, leading the images team, responsible for the photo servers containing a billion photos and handling up to 5 million new photo uploads per day using a self-healing Distributed Hash Table. Most code was written in PHP.

10/2008 - 04/2009 Director of the C++ Development department *Kibitech (Madrid)*

I was the director of the C++ development department, and person in charge of a team of 8 engineers. My work consisted of the development of a system of TV2.0 in dedicated hardware, using SpiderMonkey, an inhouse SVG renderer, and OpenGL.

At the specific task of Picture-in-Picture video streaming with SVG animations, our in-house viewer beat all the major web browsers (this was before WebGL).

04/2007 - 09/2008 HEAD OF SOFTWARE, BANK SECURITY By techdesign (Madrid)

Person in charge of all in-house software products, related to physical security in banks (time-delayed safes, access control, ATMs, fingerprint readers, license plate scanners). Using embedded microprocessors and developing algorithms that work in real time with hardware. Code was developed in C#.

11/2005 - 04/2007 DIRECTOR OF R&D *TEVA*, *S.A.* (*Madrid*)

Senior specialist, responsible for the development and production of all high tech products (traffic cameras, cctv systems, automatic license plate reading systems, wireless conections via gsm and 3g), using specialized embedded hardware and developing algorithms that work in real time with hardware. Code was developed in C++ Builder.

11/2002 - 11/2005 SENIOR SYSTEMS ARCHITECT Hostway Ltd. (London, England)

Engineer and senior architect of Web servers and server clusters. Promoted main engineer in linux, and one of the 3 main engineers in Windows. I was responsible to maintain 200 linux servers and 100 virtual private servers, that contain 5,000 Web sites and support the email for 10,000 companies. All automation was done entirely with Python scripts.

Experience as a Scientific Programmer

11/1998 - 04/1999 R+D Engineer of low-level software for CRTs. *University of Oxford (Oxford, England)*

Software Engineer. Low-level programming in Windows, DirectX, high-performance timing and graphics. Working on two scientific projects.

07/1999 - 09/1999 R+D Engineer of electronic robotics. *University of Leiden (Leiden, Holland)*

Electronics engineer of robots. Low-level Windows programming, high-performance timing, digital electronics. Development of software necessary to communicate with the robot by means of variable block waves in order to activate the movements of the actuators in the legs of the robot.