

Mali Akmanalp

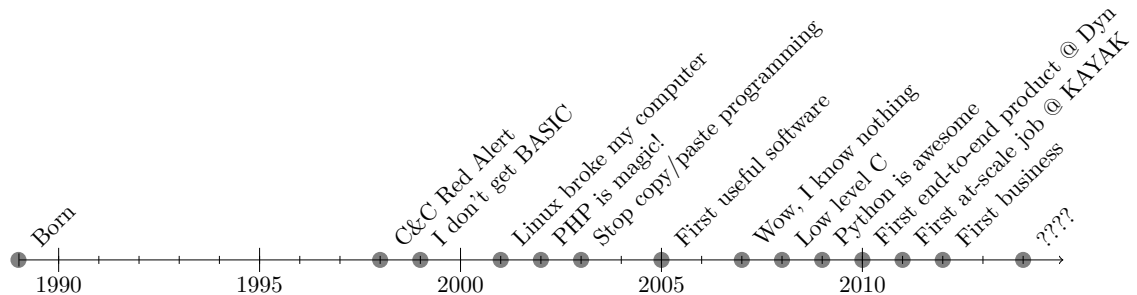
CONTACT INFORMATION

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TL;DR

Platform and infrastructure focused developer with T-shaped skills, an entrepreneurial mindset and a thirst for knowledge.



PROFESSIONAL EXPERIENCE

Custommade Ventures

Platform & Data Engineer

March 2013 – Present

Custommade is a two sided online marketplace between professional artisans and people looking for a unique item.

I'm currently working on a variety of projects, including a new scalable BI / analytics infrastructure with mongodb and a new standalone message storage service with a REST API to handle hundreds of gigabytes of messages efficiently. Other projects include various performance and caching enhancements, as well as efforts to improve search relevancy and make the site "smarter" by utilizing existing user data.

I've also written technical blog posts about our work, open sourced libraries we use and spoken at events multiple times.

VisaJobs.net

Owner & Lead Developer

April 2012 – March 2013

Quit my job to start a site for foreign professionals to gather information about employers that sponsor work visas. I wore every hat from code monkey to business strategist to salesperson.

On the backend, I wrote a large scale data cleaning, validation, filtering and aggregation framework, which I used for the main site data. The site is written in Python, and designed to be easily scalable on cloud providers such as EC2. Part of this framework, which allows ORM-like schema-based transformations on CSV data, is now open source on github.

The site itself uses a combination of Python, Flask, SQLAlchemy and PostgreSQL. The frontend uses Twitter Bootstrap with Angular.js and jQuery. The dev environment is virtualized with Vagrant and Chef.

KAYAK

Software Engineer

June 2011 – April 2012

Worked on the backend of this massive site using Java, Spring and MySQL. Replaced aging and failure-prone pieces of infrastructure with reliable and future-proof code. Worked improving the caching system for our shared data with a leading provider of hotels. Oversaw and implemented the switch to a new SEO analytics provider, making sure the switch happened in a seamless manner, and that the data transformation code was robust. Performed analyses on large amounts of historical usage data with Hadoop / Hive, and created dashboards to offer crucial insight into operations. Supported the technical side of bulk e-mail sends every week.

Prometheus IGVC Team @ WPI

Software Engineer (Computer Vision / Navigation)

August 2010 – June 2011

For my senior project, I represented my college as part of a 6 engineer team in the national Intelligent Ground Vehicle Competition, which requires a robot to run an obstacle course autonomously, while also competing in the Institute of Navigation's autonomous lawnmower competition.

The robot, Prometheus, featured LIDAR (laser 3D mapping) and stereo vision obstacle detection with fully autonomous navigation using GPS. I programmed heavily in C++ and Python, using OpenCV and ROS.

Dyn, Inc.

Software Engineering Intern

May 2010 – August 2010

Created a yet unreleased service from scratch, which was recently sold to a client. Used Python with Pylons on top of Riak (a NoSQL distributed key / value store) to achieve a web service that could be scaled geographically if needed, and a web UI that lives in tandem with the web service. Also prototyped a client component that lives on an embedded device and remotely communicates with the web service.

ArtIstanbul

Consultant

December 2009 – January 2010

Assisted the design and implementation a web application which aims to display social data relating to happiness on a map in a meaningful way. Worked with the Google Maps API. Investigated algorithms and wrote software in Python to generate choropleth and heatmap overlays for a large amount of data points efficiently.

Worcester Polytechnic Institute

Senior Assistant, Software Security

December 2009 – January 2010

Graded assignments / projects and held office hours to answer questions and explain concepts for an experimental hands-on software security class. Covered general security subjects ranging from SQL injections, XSS, CSRF, clickjacking, session hijacking, buffer overflows, string formatting vulnerabilities, phishing, social engineering to more theoretical subjects such as security UX/usability, threat modelling, capabilities, defensive programming etc.

Google Summer of Code / KDE

Software Engineering Intern

May 2009 – August 2009

Got accepted to the Google Summer of Code program to Pardus Linux and worked on the KDE desktop environment. Created and implemented an easy to use GUI animations API that used Qt Kinetic for libplasma, in the KDE core. Enabled developers to add commonly used animations to their software in one or two lines of code.

National Research Institute of Electronics and Cryptology

Linux Software Engineering Intern

June 2008 – July 2008

Implemented fingerprint authentication support to Pardus Linux at the Turkish equivalent of the NSF. Coded a simple binding for the library (libfprint) in C, and a GUI in Python / QT which would enroll and check the fingerprint for the current user securely using the system configuration manager backend, COMAR.

OPEN SOURCE
PROJECTS

[flask-chassis](#)

A boilerplate template for REST web services.

[simpleflake](#)

A distributed ID generation library. ([Blog post](#))

[django-components](#)

A library to create reusable components for the Django web framework, as well as auto-caching them.

[transformer](#)

A user friendly data processing and filtering library that allows you to define ORM-like models on top of your raw data.

[sqlalchemy-crosstab-postgresql](#)

A plugin to the SQLAlchemy library that allows the use of a PostgreSQL specific cross tabulation function.

EDUCATION

Worcester Polytechnic Institute, Worcester, MA, USA

2007 - 2011

BsC Computer Science, with distinction

Eyuboglu High School, Istanbul, Turkey

2003 - 2007

Turkish National Diploma

International Baccalaureate Diploma

AWARDS &
HONORS

- 3rd in graduating class International Baccalaureate students, 5th in full class
- WPI International Merit Scholarship: 2007-2011
- Dean's list at WPI