

# TUGRUL ATES

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## EXPERIENCE

### Google

#### Hardware PA, Senior Software Engineer

'11 Jun  
Present

- Working on a not-yet-launched confidential product.
- Co-design and development for API servers, hardware and user-facing shell applications.
- Supervised user studies.

**Key tech:** *C++, Java, GCE, Google API, Borg, Spanner, GCS, Dremel, protobuf, Guice, Git, Gerrit, Jenkins*

### Google Play, Senior Software Engineer

- Tech lead for several new store features, many of which have been highlighted at Google I/O keynotes.
- Proposed and championed automated topic-based app merchandising. +20% installs per visit to app categories and enabled clustered results on search.
- Designed and coordinated "Popular Characters" among six engineering teams. It is the primary driver of all acquisitions in Family Store for every vertical.
- Designed and led developer pages, author pages, seasonal promo pages and more.
- Designed and built the framework for multiple personalized recommendation shelves. Managed to get buy-in from stakeholders of each vertical, grasping their business models and shaping the feature accordingly. +1% revenue for all of Play.
- Gave tech-talks and Play all-hands presentations.
- Frequently went beyond software construction to devising statistical experiments, user behavior analysis, prototyping and project management.

**Key tech:** *Java, C++, Python, Android, Borg, Freebase, Sibyl, proprietary RPC & search infra, BigTable, Dremel, FlumeJava, MapReduce, protobuf, JavaScript, HTML, CSS, Guice, Perforce*

### AdWords Billing, Software Engineer

- Owned the migration of billing and invoicing for prepaid AdWords customers (X% of Google revenue) from vendor to in-house. Made the process hidden to the customers.
- Re-designed the budget migration for all of AdWords. Convinced lead stakeholders that my approach is better. Reduced costs by 90% on budget transfers.
- Owned and improved deployment process for all AdWords billing migration tasks, allowing parallel deployments and tracking the status of individual migration batches.
- Proposed and wrote a reporting framework to automatically identify the status of and the next challenges for the project, informing both the team and major stakeholders.

**Key tech:** *Java, Python, Borg, BigTable, MySQL, Dremel, FlumeJava, MapReduce, Guice, SSTable, protobuf, Perforce*

### Scientific And Technological Research Council of Turkey

'06 Apr  
'11 May

#### Space Technologies Research Institute, Researcher

- Co-designed and built large scale multimedia algorithms for automated government monitoring of all radio & TV broadcasts in Turkey.
- Designed and built a machine learning framework for classification and regression. This includes wrappers around open-source software, in-house algorithms, testing libraries and visualization tools.
- Designed and implemented base libraries for low level audio, image and video processing.
- Co-designed and built a video query by example system. Participated with this at TRECVID workshops.
- Publications on GPGPU, semantic media analysis, video copy detection, explicit image detection, data hiding, relevance feedback and more.
- Represented the institute at conferences worldwide.
- Lead for organizing the code base, establishing coding standards and testing.
- Met with customers and tutored field operators.

**Key tech:** *C++, Python, MATLAB, MPEG-7, SVM, LVQ, GMM, HMM, Bayesian inference, logistic regression, SIFT, SURF, OpenCV, GTK, ffmpeg libs, OpenCL, CUDA, Subversion, SCons*

## EDUCATION

### Middle East Technical University '07 Sep M.S., Electrical and Electronics Engineering '10 Dec

- Specialization: computer vision, machine learning
- Research and publications on free-view rendering of 3D video with GPUs as the thesis requirement.
- Participated in Netflix Prize as a course project and made it to the final leaderboard.

**Key tech:** *C++, MATLAB, HMM, stereo matching, depth sensing, matrix factorization, OpenGL, OpenCL, Qt*

### Middle East Technical University '03 Sep B.S., Electrical and Electronics Engineering '07 Jun

- Specialization: digital signal processing, computers

## PERSONAL INTERESTS

### Demoscene

[www.youtube.com/c/TugrulAtes](http://www.youtube.com/c/TugrulAtes)

- Made size-restricted real-time animations for fun.
- Competed at international events.

**Key tech:** *C, Assembly (x86), C++, OpenGL, OpenCL, SDL, FMOD, Windows API*