Research Methods in computer science

Spring 2017

Lecture 17

Omprakash Gnawali

March 22, 2017

Agenda

HW8 live grading

Research Conference Updates

Author Disclosures

Level of details

ventricular dysfunction as
f computed tomography.
aimed to address concerns
gulants may confer a higher
ɔng patients with renal im-
ɔdy weight.[12] We identified
ifth of patients with these
of the daily dose of edoxa-
ained efficacy with signifi-
than that observed in the

actice with the comparator,
rin therapy was proactively
ıt the study. This resulted in
the therapeutic range of

to standard therapy with warfarin after initial heparin, with significantly less bleeding.

Supported by Daiichi-Sankyo.

Dr. Büller reports receiving consulting fees from Bayer, Boehringer Ingelheim, Bristol-Myers Squibb, Isis Pharmaceuticals, and ThromboGenics, and grant support from Bayer and Pfizer. Dr. Décousus reports receiving fees for board membership from Bayer and Daiichi Sankyo, lecture fees from GlaxoSmithKline, and grant support from Bayer, Bristol-Myers Squibb–Pfizer, Boehringer Ingelheim, and Portola. Drs. Grosso, Mercuri, Schwocho, and Shi report being employees of Daiichi Sankyo. Dr. Middeldorp reports receiving consulting fees from Bayer and Bristol-Myers Squibb–Pfizer, lecture fees from Bayer, GlaxoSmithKline, Bristol-Myers Squibb–Pfizer, and Boehringer Ingelheim, and grant support from GlaxoSmithKline, Bristol-Myers Squibb–Pfizer, and Sanquin. Dr. Prins reports receiving consulting fees from Bayer, Pfizer, and Boehringer Ingelheim, and lecture fees from Bayer. Dr. Raskob reports receiving consulting fees and travel support from Bayer, Bristol-Myers Squibb, Janssen, Johnson & Johnson, Pfizer, Sanofi-

Financial disclosure to understand potential conflict of interest

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1. Conception and design
2. Provision of study material or patients
3. Collection and/or assembly of data
4. Data analysis and interpretation
5. Manuscript writing
6. Final approval of manuscript
7. Other (financial and administrative support)

Author's Name	**Contribution(s) (Use item numbers from above.)**
_____	
_____	

7 Acknowledgments

Many contributed to the Chubby system: Sharon Perl wrote the replication layer on Berkeley DB; Tushar Chandra and Robert Griesemer wrote the replicated database that replaced Berkeley DB; Ramsey Haddad connected the API to Google's file system interface; Dave Presotto, Sean Owen, Doug Zongker and Praveen Tamara wrote the Chubby DNS, Java, and naming protocol-converters, and the full Chubby proxy respectively; Vadim Furman added the caching of open handles and file-absence; Rob Pike, Sean Quinlan and Sanjay Ghemawat gave valuable design advice; and many Google developers uncovered early weaknesses.

Use Acknowledgments for more than listing the grants

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Level of Details

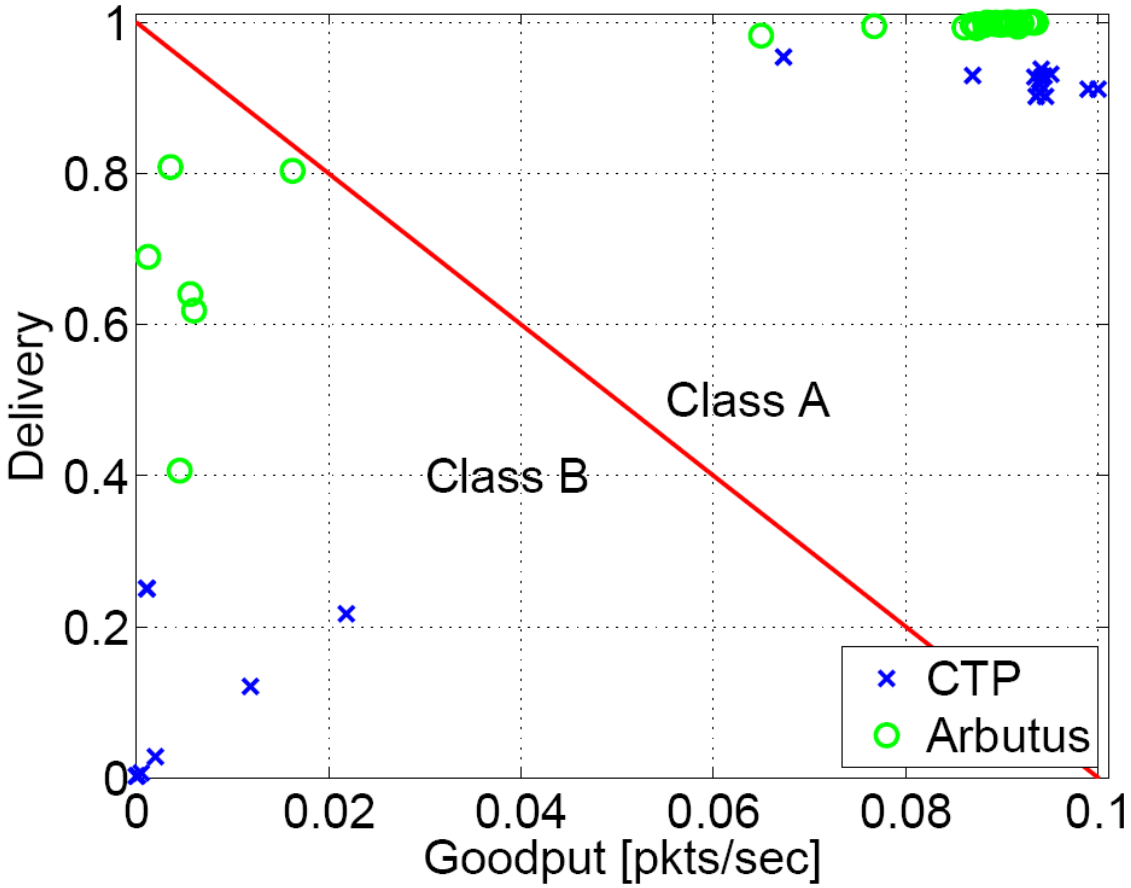
We use all available nodes in every experiment. In some testbeds, this means the set of nodes across experiments is almost but not completely identical, due to backchannel connectivity issues. However, we do not prune problem nodes. In the case of Motelab, this approach greatly affects the computed average performance, as some nodes are barely connected to the rest of the network.

5.1 Methodology

We conducted our experiments on a tiered network testbed with several Stargate nodes and 40 TelosB motes. All nodes are located above the false ceiling across multiple rooms and hallways on a floor of a large office building. The wireless environment above the false ceiling is harsh, with some links experiencing above 30% packet loss rates. All nodes run the Tenet stack modified to support AEM. In most experiments, we use a single Tenet master node. We configured the mote radios to transmit at -8.906 dBm, which results in a tree with 4-hop depth.

Experimental Methodology and Metrics We now compare the performance of Tenet-PEG and mote-PEG. Our experiments are conducted on the testbed shown in Figure 7. This testbed consists of 56 Tmotes and 6 Stargates deployed above the false ceiling of a single floor of a large office building. The Stargate and mote radios are assigned non-interfering channels. This testbed represents a realistic setting for examining network performance as well as for evaluating PEGs. The false ceiling is heavily obstructed, so the wireless communication that we see is representative of harsh environments. The environment is also visually obstructed, and thus resembles say, a building after a disaster, in which a pursuit-evasion sensor network might aid the robotic search for survivors.

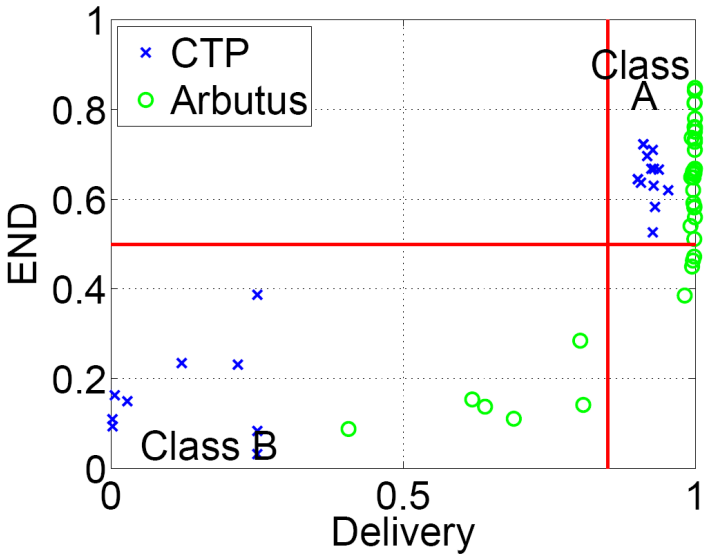
Results from the same Testbed

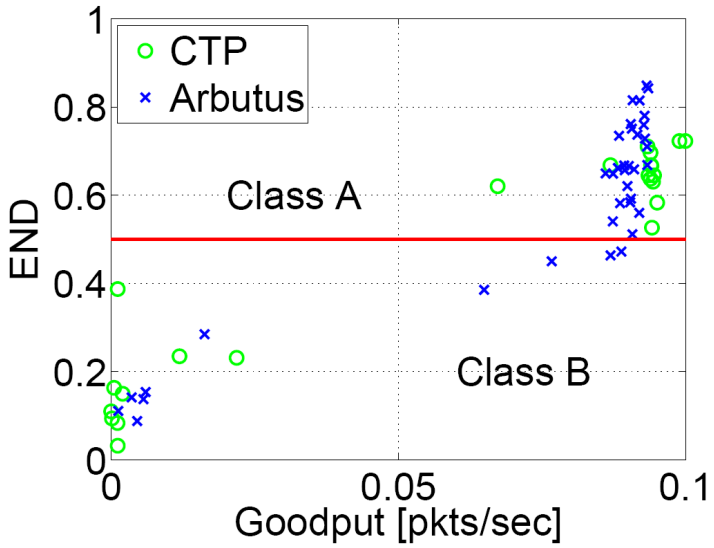


Network Metric

Converting these subjective descriptions to a more quantitative description

END and CTP Performance





DeepFace: Closing the Gap to Human-Level Performance in Face Verification

[Taigman 2014]

The SFC dataset includes 4.4 million labeled faces from 4,030 people each with 800 to 1200 faces, where the most recent 5% of face images of each identity are left out for testing. This is done according to the images' time-stamp in order to simulate continuous identification through aging. The large number of images per person provides a unique opportunity for learning the invariance needed for the core problem of face recognition…

"See the supplementary material for more details about SFC."

Supplementary Material:
DeepFace: Closing the Gap to Human-Level Performance in Face Verification

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“We evaluate the throughput and delay benefits of CQIC using the Google Nexus device to download content from a Google server via a popular cellular network provider. Reflecting a common CDN scenario, this server is located near the network of the mobile carrier such that the cellular channel is the bottleneck link…”

[Lu 2015]

HW9 –Experiment Desgin

Experiment design is typically the first subsection within evaluation section. Please describe the experiments you want to perform, why those experiments are worth doing, why the specific settings are worth using in the experiments, and any datasets you want to use in your experiments. If you research involves implementation of ideas or algorithms, you should also describe the implementation and platform in this section.