Prateek Agarwal

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TECHNICAL SKILLS

- **Programming Languages**: Python, Java, Ruby, C++
- **Datastores**: Cassandra, ElasticSearch, Zookeeper, Redis, MySQL

GITHUB PROJECTS

- **prat0318/json_resume** - Details at prat0318.com/json_resume
  ○ Ruby library to generate resume from JSON to HTML, pdf, md, tex formats.
  ○ Around 1K stars on Github. Front page of Hacker News
  ○ Current resume has been generated using json_resume.

- **prat0318/2048-tetris** - Live at prat0318.com/2048-tetris
  ○ Wrote a Tetris variant of 2048 game, 1M+ unique visits
  ○ Front page of Hacker News, mentioned in TechCrunch.

- **Yelp/pyramid_zipkin** - Zipkin integration with Pythonic services.
  ○ Built pyramid_zipkin as a wrapper to bind Pyramid based services with Zipkin.
  ○ Also wrote swagger_zipkin as a zipkin decorator over swagger clients.
  ○ Authored an engineering blog post: Distributed Tracing at Yelp.

- **Major contributor to swagger packages** - swagger-py, bravado, pyamid-swagger
  ○ Wrote swagger-py as part of my internship at Yelp - currently used in production.

PROFESSIONAL EXPERIENCE (7+ years)

Current -
Jan. 2015
Software Engineer, *Yelp, Inc.*, San Francisco.
  ○ Part of the **Distributed Systems** Infrastructure team.
  ○ Maintain and provide tooling around NoSQL datastores - **Cassandra, ElasticSearch**.
  ○ Provide **consultation** to the product teams to decide which datastore will best suit their needs.
  ○ Built **Zipkin** (Distributed tracing) infrastructure at Yelp to debug service latencies.
  ○ Wrote `pyramid_zipkin`, `swagger_zipkin` packages to easily integrate Zipkin with existing services.
  ○ Co-authored `bravado` package to integrate python services with Swagger v2.0 specifications.
  ○ Won **hackathon award** for building Yelp's onboarding tracker tool.

May-Jan '15
[part-time]
Graduate Research Assistant, *Texas Advanced Computing Center, UT Austin*.
  ○ Added docker integration to web portal digitalrocksportal.org to streamline the deployment process.
  ○ Technologies got to work on: Python, Django, Docker, Docker-compose, Celery

Aug. 2014 -
May, 2014
Software Engineer Intern, *Yelp, Inc.*, San Francisco.
  ○ Wrote `swagger-py` to build a dynamic client library for services using swagger v1.2 specifications.
  ○ Technologies got to work on: Python, Swagger v1.2, twisted

Jul. 2013 -
Jun. 2011
Software Development Engineer II, *Flipkart*, India.
  ○ Wrote a ruby gem *Morsel* to traverse through active record trees to purge old records. It helped in limiting the production database size and keeping the data clean.
  ○ Was part of the Supply chain team which remodelled and built a new one from scratch. It now scales to around 10X compared to the older system.
  ○ Technologies got to work on: Ruby, Java, Pig, Active Records, MySQL

Jun. 2011 -
Jul. 2009
Software Engineer, *IBM Software Labs*, India.
  ○ Handled high priority issues for JDBC client driver for IBM Informix database.
  ○ Was awarded Smart CADian award for resolving an obscure deadlock situation, making Informix JDBC driver more robust.
  ○ Technologies got to work on: Java, IBM Informix, IBM DB2

Talks/Blog posts

- OpenZipkin/Distributed Tracing Conf [SF, July 2016] : How Zipkin works @ Yelp
- Engineering Blog Post [Mar. 2016] : Distributed Tracing at Yelp

Education

2015 **Master of Science, Computer Science**, *University of Texas at Austin*, GPA: 3.73/4.

2009 **Bachelor of Technology (Hons.), Computer Science**, *Indian Insitute of Technology, Kharagpur (IN)*, GPA: 8.91/10.

Graduate Courses Taken

- Distributed Computing
- Multicore Programming
- Advanced Operating Systems
- Engineering Programming Language

Academic Achievements

- Was among the top 5% in the institute merit list of the undergraduate batch at IIT Kharagpur.
- Secured 383rd Rank in IIT-JEE 2005, an exam conducted by Indian Institute of Technology(s).

Research Experience

Jul. 2008 - May 2009 **Undergraduate project**, *Sanyog Lab, IIT Kharagpur*.
- Designing and Formal modelling of embedded systems for project Sanyog.
- Skills Developed: Low level system design, theorem verification using Prolog and Coq

May 2008 - Jun. 2008 **Summer Intern**, *Network Systems Lab, IIT Kharagpur*.
- Design and simulation of currently published Pull-based Freshness Schemes in C++.

Extra Curricular Awards

- Designed product *Omerta*, a multi-user chat room application in j2me using Sun Wireless Toolkit platform.
  - Was awarded 1st position for the product in Envision, Product Innovation Contest, IIT KGP.
  - Was awarded 1st position for the product in Javawise, J2ME s/w Development Contest at IIT Kharagpur, 2008 and 2009 continuously.
- Was awarded 2nd position in Bionetics, Coding Event, Genesis 09 at IIT Kharagpur.
- Microsoft Student Partner of IIT Kharagpur from the period July 08 – June 09.