

David Hatch

Software Engineer

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<http://dhat.ch>

(516) 429 8333

Education

Yale University – Class of 2017

Bachelor of Science, Computer Science. GPA: 3.60

Activities: Varsity Track (2013 - 2015), Club Lacrosse (2016 - Present)

Selected Coursework:

- Building Distributed Systems
- Database Systems
- Design and Analysis of Algorithms
- Computer Networks
- Introduction to Machine Learning
- System Programming and Computer Organization
- Operating Systems

Experience

MongoDB Inc. – Software Development Intern, Database Query Team

May 2016 - August 2016 – C, C++, JavaScript

Implemented international language collation support in MongoDB's indexing and query planning subsystems, working closely with query team members. Led technical meetings discussing my work and identifying cause of database bugs.

Yale School of Management – Management of Software Development Teaching Assistant, Programming and Entrepreneurship Teaching Assistant

August 2015 - Present – JavaScript, Meteor.js, MongoDB

Teaching MBA candidates and undergraduates fundamental programming skills with personal one-on-one assistance in the School of Management's most popular and best reviewed course. Contributed to Meteor.js based custom course website allowing students to interact with course materials online.

MongoDB Inc. – Software Development Intern, Database Server Team

May 2015 - August 2015 – C, C++, JavaScript, Go

Led the implementation of new high-precision decimal datatype for MongoDB's C driver and server. Wrote detailed specification documentation, working with customer-facing team members. Obtained approval through technical review meetings with members of the database product team. The new decimal datatype is the first major change to MongoDB's storage specification, and will support the demands of enterprise customers; critical to MongoDB's business.

Eduvant Inc. – Developer, Lead Developer BASIS

July 2011 - May 2015 – Python, Django, PostgreSQL, JavaScript, Ember.js

Created student intervention management web application targeted at teachers and student support staff. Deployed into all secondary schools in the San Francisco School District. Heavily involved in product design from early stages, including meetings with the client. Technical work included Ember.js frontend application, a notification email service, and REST API and ETL layer exposing data and statistical endpoints for several JavaScript applications.

Projects

Synplay – Computer Networks Project, Synchronized network music playback – <https://github.com/dhatch/synplay>

April 2016 - May 2016 – C++

Music playback across multiple computers without audible delay using streaming over UDP and NTP-inspired time synchronization.

Latch Locker – Database Systems Research Project – <https://github.com/dhatch/latch-locker>

April 2016 - May 2016 – C++

Research project comparing latch-free and latched currency control algorithm performance for transactional databases. Implemented lock-free concurrent linked list, hash table, and memory pool.

Tech Stack

- Python
- C, C++
- JavaScript
- Go
- Bash / Unix, Git
- MongoDB, SQL

GitHub

<http://github.com/dhatch>