

Harsh Poddar

SOFTWARE ENGINEER

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Education

University of Massachusetts Amherst

Amherst, MA

B.S. IN COMPUTER SCIENCE | GPA 4.0

Sep. 2015 - Dec. 2018

- Commonwealth Honors College, Departmental Honors.
- Course Citation in a graduate class CS 631 (Programming Languages) for highest rank.
- Course Citation for 4 undergraduate classes for being amongst the top students in class.

Industry Experience

Facebook, Inc.

Menlo Park, CA

SOFTWARE ENGINEER INTERN

May 2017 - Aug. 2017

- Worked on development of Facebook's internal version of Apache Hive and focused on performance.
- Identified scope for improvement in core join logic of Hive and redesigned it and the components around it. When tested with join queries, observed ~14% overall performance improvement.
- Produced readable code and provided a cleaner and strictly typed abstraction while still reducing query times.
- Identified and fixed multiple long-lived correctness bugs.
- Collected statistics to better understand the nature of the queries and shared findings with team to help guide future projects.

Microsoft Corp.

Seattle, WA

SOFTWARE ENGINEERING INTERN

May 2016 - Aug. 2016

- Added framework functionality to help customers customize their user interface without needing to modifying code.
- Identified a development issue and created a Chrome extension to reduce development time for the Microsoft Dynamics CRM team.
- Acquired an understanding about development of scalable enterprise application and good practices to reduce maintenance costs.

ezDI, Inc.

Ahmedabad, India

RESEARCH ENGINEER

Apr. 2015 - Aug. 2015

- Lead a team of 3 interns (undergraduate and PhD) and a full time engineer to develop an information retrieval system called Codebook.
- Codebook is currently used by hospitals in US to lookup medical codes by entering medical terms, synonyms and multiple user customizable abbreviations.
- Designed the system architecture, search module, RESTful web services, and security module.

Technical Skills

- Proficient with Java and Spring framework.
- Experience with Python, Scala, OCaml, Bash, C, C#, JavaScript, React, NodeJS, \LaTeX .
- Worked with MongoDB, MySQL, Redis, Apache Hive, Apache Lucene, Amazon Web Services, Stripe, Facebook Graph API.

Academic Experience

PLASMA

Amherst, MA

UNDERGRADUATE RESEARCHER

Jan. 2017 - Dec. 2017

- Designed a port-less network programming language called Portless NetKAT that enables network programmers to write policies in terms of packet locations instead of switches and unintuitive list of ports.
- Reduced the input domain for increased readability while still allowing the same level of control over packets.
- Developed a compiler for converting programs in Portless NetKAT to NetKAT, a language with ports.

University of Massachusetts Amherst

Amherst, MA

TEACHING ASSISTANT, CS 220: PROGRAMMING METHODOLOGIES

Sep. 2016 - May 2017

- Taught in discussion sections and held office hours to guide students through the course.
- Redesigned components of the course and helped design homework projects for students.

Awards & Certifications

AWARDS

- 2017 **1st Place**, Team Project for CS 326: Web Programming *Amherst, MA*
- 2015 **2nd Place Overall**, 1st Place AWS, and 1st Place Groupon at HackHolyoke *Holyoke, MA*
- 2014 **1st Place in India**, Top Academic Rank – Cambridge International A & AS Level Computing *Ahmedabad, India*
- 2013 **1st Place**, TiE Techies2Tycoon as founder of Phostcard *Ahmedabad, India*

CERTIFICATIONS

- 2012 **Oracle Certified Professional**, Java SE 6 Programmer *Ahmedabad, India*
- 2012 **Oracle Certified Professional**, Java EE 5 Web Component Developer *Ahmedabad, India*

Projects

Spire Course Checker

Amherst, MA

DEVELOPER

Jun. 2017

- Noticed an issue with the lack of waitlist for course registration at UMass Amherst.
- Created a course checker in Python that used Selenium to check for open courses periodically and to notify a student about it.

Nectarime

Amherst, MA

TEAM LEADER AND DEVELOPER

May 2017

- Lead a team for CS 326 Web Programming Project to enable sharing of files from mobile to public computer through QR scan.
- Created the base framework using NodeJS and React, and integrated services such as Dropbox and Google Drive.
- Used web sockets and peer to peer communication along with SSL to allow secure, rapid file sharing.

L^AT_EX Bot for Slack

Amherst, MA

DEVELOPER

Nov. 2016

- Identified problems with sharing of problems involving special symbol over Slack group and limitations of existing solutions.
- Created a Slack Bot written in NodeJS that replied with images produced from L^AT_EX code sent with the ability to process edited messages.

Contextr

Amherst, MA

DEVELOPER

Oct. 2015

- Developed a context-aware text suggestion engine that suggested text based on the document context and related documents.
- Used data scrapped from web pages online to create contextual Markov chains and used them to rank next word suggestions.

Dynapodd

Ahmedabad, India

DEVELOPER

Jan. 2015

- Dynapodd is an example based query and update system as an extension for Hibernate ORM and Spring Data MongoDB.
- Created using Java Reflection API to ease the development of backend for my startup, Phostcard.

GoPapers.net

Ahmedabad, India

FOUNDER AND DEVELOPER

Apr. 2014

- Application to allow quick access to past papers for Cambridge International Examinations.
- 40,000 users from 140 countries have used this web application.

Home Automation System

Ahmedabad, India

CREATOR

Feb. 2014

- Worked on several automation projects using Arduino and microcontrollers, along with a variety of sensors and components.
- Designed a Bluetooth IR relay device that would allow TV and AC control from phone.
- Created an app to dim the lights in the house, and control the fan speed over WiFi.