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. 2017*

- 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

101edu, Inc.   *Remote Work*

BACKEND DEVELOPER   *Aug. 2016 - Jan. 2017, Sep. 2017 - Dec. 2017*

- Implemented RESTful API server for Chem101 mobile applications and web application using Spring framework (DI, Boot, Data, Security, Web).
- Built and deployed overall service infrastructure utilizing several AWS stack (including EC2, S3, CloudFront, Route 53, CodePipieline, CodeBuild, and IAM), focusing on high-availability, fault tolerance, and auto-scaling.
- Integrated external services such as Stripe payment processing and AWS SNS push notifications.

Facebook, Inc.   *Menlo Park, CA*

SOFTWARE ENGINEER INTERN   *May 2017 - Sep. 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.
- Aquired 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, 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 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 a language with ports (NetKAT).

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 though the course.
- Redesigned components of 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	**Top Academic Rank**, #1 in India – 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 registeration 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.

LaTeX 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 LaTeX code sent with the ability to update code.

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 Examninations.
- 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.