

# Hersh Patel

patel.hersh@rutgers.edu • 732 853 3885 • www.hershpate.com • Seattle, WA

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## Experience

**Amazon Web Service (AWS) • Software Engineer I/II - IoT SiteWise Monitor • August 2019 - Present**

- Founding member; Implemented 10 of 22 serverless REST APIs in Go and achieved 99.99% availability since GA
- Collaborated with product managers and principal engineers to design an AWS IAM based authN mechanism which unblocked 5+ enterprise customers and our product launch in China; Led a team of 4 to implement the feature
- Designed and developed a microservice to bill customers per unique active user per month globally
- Awarded the Above & Beyond award at the AWS IoT Analytics all-hands for work done on the billing service

**Amazon • Software Engineering Intern - Virtual Dash Buttons • May 2018 - August 2018**

- Built a pipeline to display smart labels for 1.4B+ virtual dash buttons with AWS DynamoDB and Spring MVC
- Expanded the virtual dash core service by writing Java APIs to translate data between internal microservices
- Designed an A/B test to evaluate potential growth in customer conversion rate for the top 100 replenishable products

**Bloomberg • Market Data Summer Analyst - Energy & Commodities • June 2017 - August 2017**

- Built a document classification program with Python's Natural Language Kit to extract data from 150+ page reports
- Redesigned the power data API with Python's Beautiful Soup according to 8 client's recommendations

**NBCUniversal • Data Analytics Intern - Big Data • June 2016 - August 2016**

- Leveraged customer purchase KPIs, with SQL, to propose a 40% increase in Fandango's user retention rate
- Engineered a high throughput data pipeline with AWS Kinesis and Hadoop to handle over 2TB data per day

**Rutgers Department of Computer Science • Teaching Assistant • January 2018 - Fall 2018**

- Fall 2018 - Foundations of Business Programming (136:388)
  - Spring 2018 - Intro to Discrete Structures 2 (198:206)
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## Activities

**BAPS Charities • Regional Youth Activities Volunteer • September 2011 - Present**

- Plan, oversee, and speak at regional summer camps and weekly assemblies for 3k+ children with team of 12 members

**TEDxRutgers • President • Tech Director • December 2015 - May 2019**

- Achieved 90% growth (~500 to ~1k members) over one year by identifying attendance trends in member data
- Led team of 20 (Design, Marketing, Tech, Finance, Logistics) to host conferences with 1k+ attendees and 10 speakers

**Smart Cities • Independent Study - Professor Desheng Zhang • January 2018 - January 2019**

- Researched the feasibility of real-time sharing of sensor data within heterogeneous vehicular networks
  - Analyzed spatio-temporal granularities of human mobility patterns in Shenzhen, China to predict mobility uniqueness
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## Education

**Rutgers University - New Brunswick • September 2015 - May 2019**

Bachelors of Science in **Computer Science** and **Economics**

GPA: 3.83/4.00

**Relevant Coursework:** Grad Artificial Intelligence (520) • Grad Pattern Recognition (535) • Algorithms (344)

Systems Programming (214) • Databases (336) • Distributed Systems (417) • Game Theory (482) • Smart Cities (494)

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## Skills & Interests

**Programming:** Go • Python • Java • SQL • HTML • CSS • JavaScript

**Tools:** AWS (API Gateway, CloudFormation, CloudWatch, DynamoDB, IAM, IoT, KMS, Kinesis, Lambda, Route53, SES, SNS, SQS, SSO, Step Functions, X-Ray) • Git • Bloomberg Terminal

**Interests:** Traveling • Running • Photography • Volunteering • Bhangra & Bollywood Music