**Navin Pathak**

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**EDUCATION**

**Hofstra Northwell School of Medicine**, Hempstead, NY

MD, expected May 2021

**Rice University**, Houston, TX

BS in Bioengineering, May 2014

GPA: 3.76/4.0

Science GPA: 3.68/4.0

President’s Honor Roll (3x)

**EMPLOYMENT**

**Epic**

*Interface Engineer (EDI)* 2014-2016

* + Lead a 2-year, 3rd party interface installation at Johns Hopkins for their academic hospitals through collaboration with their 14-person interfaces team
  + Presented interface design to over 100 clinical and technical personnel at Johns Hopkins Hospital for workflow validation
  + Owned workflow direction sessions for interface division, collaborating with interface implementation leadership to improve process for workflow direction sessions
  + Designed and developed server code for clinical interfaces with 3rd party systems following industry standards (HL7) as well as principles laid out by Epic developers.

**Rice University**

*Teaching Assistant for Electronics Lab* 2013-2014

* Introduced concepts and reviewed course materials relevant to lab course
* Provided expertise for students on circuit design and algorithms

*Teaching Assistant for Bioengineering Fundamentals Course* Fall 2012

* Advised and facilitated discussion among students for homework problems
* Graded homework problems on a biweekly basis

**RESEARCH EXPERIENCE**

**Rice University Capstone Design** 2013-2014

*Capstone Design Student*

* Designed and documented ESE Pace, a novel device for temporary emergency pacing with interdisciplinary design team
  + Collaborated with Dr. Mehdi Razavi at Texas Heart Institute
* Filed provisional application for patent
* Lead multiple animal studies on lambs with prototypes

**Rice University Department of Biochemistry** 2012-2013

*Undergraduate Researcher under Dr. Edward Nikonowicz*

* + Presented 15-minute talk at Regional Undergraduate Symposium at Rice University
  + Analyzed Nuclear Magnetic Resonance (NMR) data on the histone pre-mRNA stem-loop from the malarial parasite *P. falciparum* on a Unix server
  + Reviewed literature outlining previous research on *P. falciparum* stem-loop structure

**UT Southwestern Medical Center**

*Research Fellow under Dr. Zbyszek Otwinowski*  Summer 2012

* + Designed protocol to find and cluster repetitive elements in human genome and *de novo* sequence reads from next generation sequencing techniques using C++
  + Classified repetitive groups and validated method against previously identified repetitive elements in the human genome
  + Reviewed literature outlining previous research on genome repeats and analysis of the human genome through computational methods
  + Presented final research poster to program mentors and fellows

**PROGRAMMING EXPERIENCE**

**Norhwind Demo Application** Spring 2014

*Student Web Developer*

* Designed a system for entering and editing products using the Northwind database
* Used modern encryption techniques to ensure secure data exchange
* Built site using PostgreSQL, Node, Express, and Angular with a teammate

**Package Management System** Spring 2014

*Volunteer Software Engineer*

* Designed a system in Java for college mail room
* Documented and licensed software under open source license (see Github)
  + Implemented software with Jones College Coordinator
  + Expanded software to other residential colleges throughout Rice University

**CLINICAL EXPERIENCE**

**MD Anderson Cancer Center** Spring 2014

*Clinical Interpretation Intern*

* + Shadowed Spanish interpreters across multiple specialties
  + Actively involved myself in the interpreting process, learning both language and culture of the patients of different nationalities
  + Observed multiple procedures across different specialties within cancer center

**Dallas Area Physician Shadowing** Summer 2013

*Student Shadow*

* + Shadowed an electrophysiologist, a pediatrician, and an outpatient oncologist in group and private practice settings
  + Gained broad knowledge in these specialties and solidified resolve to study medicine

**COMMUNITY INVOLVEMENT AND EXTRACURRICULARS**

**Jones College Academic Fellows** 2012-2014

*Academic Fellow*

* Planned and advertised Q&A panels with graduate and medical students
* Tutored introductory physics and bioengineering courses weekly with small groups
* Coordinated and lead large group review discussions prior to major exams

**Designing with Rice Engineers: Achievement through Mentorship** 2011-2013

*Class Lead Mentor*

* Coordinated 4 mentors and prepared material for class of 18 students in Stephen F. Austin High School weekly for specified design project
* Presented design criteria and updates to the class on a weekly basis
* Followed and mentored individual design teams for multiple projects
* Encouraged enrollment in higher education and engineering through conversation

**Engineers without Borders** 2010-2011

*Nicaragua Team Engineer*

* Designed and documented a bridge with Rice Engineers without Borders teams
* Developed and translated user manuals to Spanish for use by local community
* Traveled to and constructed bridge with community of El Panama, Nicaragua

**SKILLS**

* *Programming Languages*: Unix, C++, Python, Java, HTML, CSS, JavaScript, SQL, MATLAB, MUMPS
* *Computer Skills*: Proficient in Microsoft Word, Excel, PowerPoint, LaTeX
* *Foreign Languages*:Fluent in Spanish, Basic Chinese

**AWARDS & CERTIFICATES**

* Certification in EpicCare Ambulatory through Epic 2014
* Certification in Epic Bridges (Interface Application) through Epic 2014
* Certification in Epic Server Development
* President’s Honor Roll (3x)
* National Merit Scholar