

# JESSE BARTOLA

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## EDUCATION

**Computer Science (B.S.)**  
University of Massachusetts Amherst

3.91 GPA  
May 2019

### Notable Coursework

Artificial Intelligence, Algorithms, Mobile Health Sensing and Analytics,  
Operating Systems, Programming Methodology, Reasoning Under Uncertainty

## TECHNICAL SKILLS

**Proficient:** Java, Scala, Python, Javascript, HTML, CSS

**Experience:** SQL, iOS (Swift), C, MongoDB

## JOB EXPERIENCE

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|--|-------------------------------|----------------|
| <b>Scala Web Developer</b>   | University of Massachusetts   | 9/17 - Present |
| <ul style="list-style-type: none"><li>• Augmented the existing application website for MS and PhD Computer Science admissions</li><li>• Utilized Scala.js to provide a type-safe way of constructing a dynamic web interface</li><li>• Oversaw the migration of a JSON-embedded PostgreSQL database to a SQL-friendly schema</li></ul>   |                               |                |
| <b>Software Engineer Intern</b>  | Charles River Analytics, Inc. | 5/17 - 8/17    |
| <ul style="list-style-type: none"><li>• Aided in the full-stack development of a React.js web application designed to detect system hardware failures onboard ships in the Navy</li><li>• Formulated Bayesian Network models for hardware fault detection using the Figaro probabilistic programming package for Scala</li><li>• Integrated a sandbox environment for testing of observation patterns against classification algorithms to ensure accurate and optimal performance</li></ul> |                               |                |
| <b>Teaching Assistant</b>  | University of Massachusetts   | 9/16 - 12/16   |
| <ul style="list-style-type: none"><li>• Oversaw the curriculum and administration for the Programming Methodology course</li><li>• Collaborated with course instructors in teaching concepts derived from the functional programming paradigm using Scala</li><li>• Responsible for orchestrating class discussion sections and holding weekly office hours</li></ul>  |                               |                |
| <b>Lead Platform Engineer</b>  | TxtAdvice LLC                 | 6/15 - 11/15   |
| <ul style="list-style-type: none"><li>• Participated in full-stack development of a web application providing users with realtime fashion advice from professionally trained stylists</li><li>• Synthesized and maintained an SMS/MMS interface using React.js, Twilio's API, and Python's Flask web framework. Configured PostgreSQL queries to collect and analyze user usage data</li></ul>   |                               |                |

## INDEPENDENT PROJECTS

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|---|-------|
| <b>Medicus</b>  | 10/16 |
| <ul style="list-style-type: none"><li>• Led a team of students in engineering an iOS application employing machine learning and image recognition to diagnosis skin conditions within a predetermined confidence interval</li><li>• Developed unique probabilistic models through the use of Clarifai's image recognition API to accommodate the identification of common skin ailments</li></ul> |       |

## HONORS/AWARDS

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|-----------------------------|---|
| <b>3<sup>rd</sup> Place</b> | <b>2015 Hack UMASS</b><br>Worked with a team of students in assembling an iOS application through rapid prototyping, utilizing Arduino sensors to monitor multiple sclerosis symptoms in patients |
| <b>2<sup>nd</sup> Place</b> | <b>Computer Programming, 2015 NJ SkillsUSA State Championships</b><br>Competed against 200+ programmers from New Jersey in Java applet development  |