

# Joshua Holbrook

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## Skills and Qualifications:

- Expert in server-side JavaScript (node.js); Knows JavaScript, python & bash; Experience with R, MATLAB & LabVIEW
- Fluent in HTML and Markdown; Experience with L<sup>A</sup>T<sub>E</sub>X
- Competent with couchdb and mongodb; Experience with redis, leveldb, rabbitmq, solr and AWS Redshift
- Experience with writing, serving and consuming HTTP RESTful and non-RESTful, JSON and/or XML APIs
- Theoretical and practical experience with numerical methods focusing on multivariate nonlinear optimization and boundary value problems
- Proficient with Microsoft Office suite and vim; Experience with COMSOL Multiphysics 3.5 and emacs
- Experience in engineering/laboratory measurements and instrumentation hardware
- Certified EIT; Comprehensive understanding of mechanical engineering principles
- Ability to lift and carry up to 30 lbs

## Education:

*Master of Science in Mechanical Engineering* *Sept. 2009 – May. 2011*  
University of Alaska Fairbanks  
*Thesis: The Determination of Anisotropic Thermal Conductivity with Thermal Needle Probe Measurement*  
*3.62 GPA*

*Bachelor of Science in Mechanical Engineering, Cum Laude* *Aug. 2005 – May 2010*  
University of Alaska Fairbanks  
*Minor in Mathematics 3.67 GPA*

*High School Diploma* *May 2005*  
Susitna Valley Jr/Sr High School  
*3.73 GPA*

## Projects:

*The Determination of Anisotropic Thermal Conductivity with Thermal Needle Probe Measurements* *May 2010 – May 2011*

- Masters Thesis
- Numerical component involving 3-D modeling with comsol and matlab to simulate thermal needle probe measurements
- Lab measurement component involving engineered anisotropic materials

*Counting of Stream Crossings Along a Path Between Two Given Alaskan Villages* *March 2010 – May 2010*

- Used python and qgis
- First experience with ESRI shapefiles and GIS in general
- Part of a feasibility study on laying unburied fiber optic cable over tundra in remote regions of Alaska

## Service:

*American Society of Mechanical Engineers, Student Chapter* *September 2009 – May 2010*

- Administered web site and facebook page
- Volunteered at E-Week activities

## Awards & Grants:

*Center for Global Change Student Research Grant*

*May 2010*

- Project title: "Determining Anisotropic Thermal Conductivity of Snow with Needle Probe Measurements"
- Awarded \$8200

*3rd Place, 2010 Campus Research Day Undergraduate Symposium*

*April 9th, 2010*

- Project title: "Development and Benchmarking of Optical Touchscreen User Interface Technology"
- Awarded \$1000

*Undergraduate Research Grant*

*October 2009*

- Project title: "Development and Benchmarking of Optical Touchscreen User Interface Technology"
- Awarded \$2250

**Employment History:**

*Senior Developer*

*September 2016 - Present*

Fusion Media Group, Manhattan NY

Job duties include:

- Developing, deploying and supporting ETL processes and scheduling for data warehousing with python and AWS Redshift

*Software Developer*

*February 2014 - August 2016*

Condé Nast Technology, Manhattan NY

Job duties include:

- Developing API services for content management and publishing with node.js, mongodb and solr
- Deploying and supporting API services

*Software Engineer*

*August 2013 – November 2013*

i.TV LLC, Provo UT

Job duties include:

- Developing back-end systems with coffeescript, mongodb and rabbitmq
- Building internal content creation/management tools with coffeescript and angular.js
- Deployment of internal services

*Head of Support*

*June 2012 – December 2012*

Nodejitsu Inc., San Francisco CA

Job duties include:

- Managing and training junior support engineers
- Monitoring IRC, email, twitter and other sources for support requests
- Triaging and investigating issues with Nodejitsu software, servers and cloud providers
- Maintaining, bugfixing and managing releases for the Flatiron framework and Nodejitsu's open-source software
- Developing and maintaining internal support infrastructure and tooling

*Support Engineer*

*July 2011 – May 2012*

Nodejitsu Inc., San Francisco CA

Job duties include:

- Monitoring IRC and email for support requests
- Triaging and investigating issues with Nodejitsu software
- Implementing sendgrid-based email system for Nodejitsu master API
- Writing bugfixes, adding features and documenting Nodejitsu's open source libraries and software

*Teaching Assistant*

*September 2010 – May 2011*

UAF Mechanical Engineering Department, Fairbanks AK

Job duties include:

- Grading homework and designing quizzes for ES 346, Basic Thermodynamics
- Grading homework for ME/ENVE 458/658, Energy and the Environment
- Grading homework for ME 403, Machine Design
- Redesigning and conducting laboratory experiments for ME 415, Thermal Systems Lab

*Research Assistant*

*January 2010 – August 2010*

UAF Institute of Northern Engineering, Fairbanks AK

Job duties include:

- Designing and running finite element models using COMSOL and MATLAB
- Analyzing geographical information using perl, python, MATLAB and C++

*Office Assistant*

*January 2008 – December 2009*

UAF Mechanical Engineering Department, Fairbanks AK

Job duties include:

- Tracking purchase information on UAF's Oracle database and compiling it into a human-readable form
- Facilitating communication between students, faculty and system administration

*Homework Grader*

*September 2008 – December 2008*

UAF Mechanical Engineering Department, Fairbanks AK

Job duties include:

- Grading and correcting homework assignments for ES 331, "Mechanics of Materials"

*Painter*

*May 2008 – August 2008*

UAF Conference Services, Fairbanks AK

Job duties include:

- Patching, painting and wet-sanding walls, ceilings, doors and trim

*Construction Laborer*

*May 2007 – June 2007*

Panco Construction, Talkeetna AK

Job duties include:

- Sanding, polishing and assisting in the fabrication of solid surface
- Stocking, staging and assisting in the install of countertops other materials

*Laboratory Assistant*

*February 2007 – May 2007*

UAF Water and Environmental Research Center, Fairbanks AK

Job duties include:

- Taking inventory of chemical stock
- Tabulating, manipulating and organizing test data in Excel

*Porter*

*May 2006 – August 2006*

Aramark-Harrison Lodging, Denali National Park AK

Job duties include:

- Stocking; cleaning and maintaining public areas; and preparing rooms for guest arrival