

# PETER DOWNS

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## EDUCATION

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**Massachusetts Institute of Technology**  
B.S. in Computer Science & Engineering (6-3)  
Cumulative GPA: 4.7/5.0

September 2014 - June 2018 (*anticipated*)

Relevant classes and coursework: Adventures in Advanced Symbolic Programming (6.945), Software Studio (6.170), Foundations of Information Policy (6.805), Computer System Engineering (6.033), Design and Analysis of Algorithms (6.046), Operating System Engineering (6.828), Advanced Natural Language Processing (6.864), Digital Humanities (CMS.633), Networks and Complexity (MAS.581)

## WORK EXPERIENCE

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### **Smartly.io**

*Software Engineer*

Summer 2017

*Helsinki, Finland*

- Designed, implemented, and deployed an improved ad-event processing pipeline. Involved rewriting legacy PHP code in modern Ruby and using RabbitMQ to connect various services, with a focus on improved clarity of processing logic as well as improved health monitoring.
- Helped extend and improve an internal, JSON-based language for dynamically constructing SQL queries.

### **B12**

*Software Engineer*

Summer 2016

*New York City, NY*

- Improved the usability and capabilities of internal assisted-design tools.
- Designed and implemented an asset-fetching pipeline giving web designers access to a customer's existing content (such as text, images, and video) while designing.
- Performed exploratory research on using machine learning techniques to build more effective web design tools.

### **Beme, Inc.**

*Software Engineer*

Summer 2015

*New York City, NY*

- Designed and implemented the authentication scheme used by the Beme mobile app. Contributed to and largely re-wrote an open source library for this purpose ([github.com/peterldowns/vangoh](https://github.com/peterldowns/vangoh))
- Implemented product features, such as video and user recommendation algorithms.
- Refactored existing web Golang server to make it much easier to write tests against API endpoints.

### **Coinbase, Inc.**

*Software Engineer*

January 2015

*San Francisco, CA*

- Wrote and released an open source Python client library for the new Coinbase API ([github.com/coinbase/coinbase-python](https://github.com/coinbase/coinbase-python))

### **Locu, Inc. (acquired by GoDaddy)**

*Software Engineer*

September 2012 – June 2014

*San Francisco, CA*

- Designed and implemented a novel Javascript content layout algorithm (provisional patent filed).
- Designed, implemented, and open-sourced a complete OAuth2 server implementation for Django ([github.com/peterldowns/djoauth2](https://github.com/peterldowns/djoauth2))
- Helped lead user authentication and payment system integration efforts after the company was acquired by GoDaddy.
- Advocated for and implemented better code review and testing protocols.