Methodology

Career Services at the University of Pennsylvania annually surveys graduating students to provide a snapshot of their post-graduation plans.

This report looks at 629 graduates from the schools listed above who received their degrees between August 2018–May 2019. Students were surveyed up to six months from their graduation date, with a 41% response rate. Additional information was then collected via LinkedIn and other sources, bringing the total knowledge rate up to 55%, a total of 257 known graduate outcomes.

Sections

1. Post-Graduation Outcomes
2. Full-Time Employment
   a. Job Offers & Hiring Timeline
   b. Industries & Job Functions
   c. Geography & International Students
   d. Salaries by Industry & Job Function
3. Positions Accepted by Program
# Post-Graduation Plans

348 responses

- **Full-Time Employment**: 77.3%
- **Continuing Education**: 12.1%
- **Seeking Employment**: 8.0%
- **Seeking Continuing Education**: 1.4%
- **Part-Time Employment**: 0.6%
- **Military**: 0.6%

90.5% of graduates were either employed, enrolled in continuing education, or serving in the military in the first 6 months after graduation.

## Full-Time Employment

### Job Offer Source

171 responses

- **Applied Directly**: 31%
- **Previous Employer/Summer Internship**: 25%
- **Penn Contacts**: 13%
- **Other Career Services Resources**: 10%
- **Non-Penn Contact**: 9%
- **On Campus Recruiting (OCR)**: 9%
- **Other**: 2%

### Date of Job Offer

132 responses

- **Jul and earlier**: 6%
- **Aug**: 8%
- **Sep**: 6%
- **Oct**: 10%
- **Nov**: 12%
- **Dec**: 7%
- **Jan**: 6%
- **Feb**: 10%
- **Mar**: 8%
- **Apr**: 11%
- **May**: 11%
- **Jun**: 2%
- **Jul**: 1%
- **Aug**: 2%
- **Sep and later**: 1%

Top Employers

- Amazon (20)
- Google, Inc. (19)
- Microsoft (14)
- Facebook (9)
- Huawei Technologies, Inc. (6)
- Oracle (6)
- Apple (5)
- Airbnb (4)
- Merck & Co., Inc. (4)
- Micron Technology Inc. (4)
- NVIDIA Corporation (4)
- University of Pennsylvania (4)
Full-Time Employment

Employer by Industry
265 responses

- Technology, 55%
- Financial Services, 6%
- Consulting, 6%
- Computer Products - Hardware, 5%
- Biomedical Products/Pharmaceuticals, 5%
- Automotive, 4%
- Aerospace, 3%
- Other, 3%
- Pharmaceuticals/Biotechnology, 3%
- Education, 3%
- Electronics/Robotics, 2%
- Consumer Products, 1.5%
- Manufacturing - Other, 1.5%
- Media/Journalism/Entertainment, 0.8%
- Nonprofit, 0.8%
- Design/Fine Arts, 0.4%
- Energy/Natural Resources/Utilities, 0.4%
- Marketing/Advertising/Public Relations, 0.4%
- Real Estate/Construction, 0.4%

Job Function
189 responses

- Software Development/Engineering, 51%
- Manufacturing, 10%
- Product/Project Management (Technology), 5%
- Consulting: Management/Strategy, 4%
- Research: Biomedical, 4%
- Research: Other, 4%
- Data Analytics: Data Science, 3%
- Systems Engineering/Analysis, 3%
- Data Analytics: Data Analytics, 2%
- Technology Analysis, 2%
- Testing/Quality/Evaluation, 2%
- Management, 2%
- Research & Development, 2%
- Finance: Investment Banking, 1%
- Finance: Trading, 1%
- Game Development, 1%
- Other, 1%
- Administration, 1%
- Business Development, 1%
- Consulting: Research, 1%
- Sales, 1%
Full-Time Employment

Employment by State
227 responses

International Students
Of the 100 survey respondents who identified as foreign nationals, 86 reported they were employed full-time and 69 reported they were employed full-time in the U.S.

U.S. Employers of Foreign Nationals

## Full-Time Employment

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Median</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Salaries</td>
<td>163</td>
<td>$105,000</td>
</tr>
<tr>
<td>Signing Bonuses</td>
<td>112</td>
<td>$20,000</td>
</tr>
</tbody>
</table>

### Salaries by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Reporting</th>
<th>Median</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace</td>
<td>6</td>
<td>$93,500</td>
<td>$78,965 - $115,000</td>
</tr>
<tr>
<td>Automotive</td>
<td>7</td>
<td>$90,000</td>
<td>$30,000 - $165,000</td>
</tr>
<tr>
<td>Biomedical Products/Pharmaceuticals</td>
<td>4</td>
<td>$72,500</td>
<td>$60,000 - $90,000</td>
</tr>
<tr>
<td>Computer Products - Hardware</td>
<td>10</td>
<td>$93,125</td>
<td>$65,000 - $109,000</td>
</tr>
<tr>
<td>Consulting</td>
<td>9</td>
<td>$77,500</td>
<td>$65,000 - $90,000</td>
</tr>
<tr>
<td>Healthcare/Life Sciences</td>
<td>4</td>
<td>$74,250</td>
<td>$65,000 - $90,000</td>
</tr>
<tr>
<td>Management Consulting</td>
<td>5</td>
<td>$77,500</td>
<td>$70,000 - $90,000</td>
</tr>
<tr>
<td>Consumer Products</td>
<td>3</td>
<td>$75,000</td>
<td>$70,000 - $84,000</td>
</tr>
<tr>
<td>Design/Fine Arts</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Education</td>
<td>4</td>
<td>$55,625</td>
<td>$45,000 - $93,600</td>
</tr>
<tr>
<td>Higher Education - Non-Research</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Higher Education - Research Lab</td>
<td>3</td>
<td>$61,249</td>
<td>$45,000 - $93,600</td>
</tr>
<tr>
<td>Electronics/Robotics</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Energy/Natural Resources/Utilities</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Financial Services</td>
<td>13</td>
<td>$90,000</td>
<td>$60,000 - $175,000</td>
</tr>
<tr>
<td>Diversified Financial Services</td>
<td>3</td>
<td>$99,000</td>
<td>$83,000 - $106,000</td>
</tr>
<tr>
<td>Hedge Fund</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Investment Banking/Brokerage</td>
<td>3</td>
<td>$79,656</td>
<td>$60,000 - $85,000</td>
</tr>
<tr>
<td>Investment Management/Counsel</td>
<td>4</td>
<td>$95,000</td>
<td>$68,000 - $150,000</td>
</tr>
<tr>
<td>Private Equity</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Manufacturing - Other</td>
<td>3</td>
<td>$92,000</td>
<td>$83,900 - $92,500</td>
</tr>
<tr>
<td>Marketing/Advertising/Public Relations</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Media/Journalism/Entertainment</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>$88,500</td>
<td>$82,000 - $180,000</td>
</tr>
<tr>
<td>Pharmaceuticals/Biotechnology</td>
<td>6</td>
<td>$70,000</td>
<td>$62,400 - $90,000</td>
</tr>
<tr>
<td>Real Estate/Construction</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Technology</td>
<td>86</td>
<td>$120,000</td>
<td>$45,000 - $155,000</td>
</tr>
</tbody>
</table>

*Fewer than 3 reported salaries not published to maintain confidentiality.*
Salaries by Job Function

<table>
<thead>
<tr>
<th>Job Function</th>
<th>Reporting</th>
<th>Median</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Consulting</td>
<td>8</td>
<td>$76,750</td>
<td>$65,000</td>
</tr>
<tr>
<td>Management/Strategy</td>
<td>7</td>
<td>$75,000</td>
<td>$65,000</td>
</tr>
<tr>
<td>Research</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Data Analytics</td>
<td>9</td>
<td>$115,000</td>
<td>$62,400</td>
</tr>
<tr>
<td>Data Analytics</td>
<td>3</td>
<td>$125,000</td>
<td>$85,000</td>
</tr>
<tr>
<td>Data Science</td>
<td>6</td>
<td>$112,500</td>
<td>$62,400</td>
</tr>
<tr>
<td>Finance</td>
<td>4</td>
<td>$82,328</td>
<td>$60,000</td>
</tr>
<tr>
<td>Investment Banking</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trading</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Game Development</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Management</td>
<td>3</td>
<td>$50,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>17</td>
<td>$83,900</td>
<td>$36,000</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Product/Project Management (Technology)</td>
<td>5</td>
<td>$108,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Research</td>
<td>7</td>
<td>$61,249</td>
<td>$45,000</td>
</tr>
<tr>
<td>Biomedical</td>
<td>3</td>
<td>$65,000</td>
<td>$61,249</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>$55,000</td>
<td>$45,000</td>
</tr>
<tr>
<td>Sales</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Software Development/Engineering</td>
<td>83</td>
<td>$115,000</td>
<td>$45,000</td>
</tr>
<tr>
<td>Systems Engineering/Analysis</td>
<td>4</td>
<td>$86,500</td>
<td>$65,000</td>
</tr>
<tr>
<td>Technology Analysis</td>
<td>4</td>
<td>$117,500</td>
<td>$77,500</td>
</tr>
<tr>
<td>Testing/Quality/Evaluation</td>
<td>4</td>
<td>$80,000</td>
<td>$70,000</td>
</tr>
</tbody>
</table>

*Fewer than 3 reported salaries not published to maintain confidentiality.*
Positions Accepted by Program

Bioengineering
Biotechnology (MBiotech)
Chemical & Biomolecular Engineering
Computer & Information Science
Computer & Information Technology (MCIT)
Computer Graphics & Game Technology
Data Science
Electrical Engineering
Embedded Systems
Integrated Product Design
Integrated Product Design (MSE)
Materials Science & Engineering
Mechanical Engineering & Applied Mechanics
Nanotechnology
Robotics
Scientific Computing
Systems Engineering
Positions accepted by 2019 graduates are listed by program and include employer name and position title (where known).

**BIOENGINEERING**

**Full-Time Employment**

- **Accenture**, Technology Analyst
- **Amazon**, Software Development Engineer *
- **Back Bay Life Science Advisors**, Analyst
- **Consumer Reports**, Senior Analyst
- **Cross Properties**, Leasing Consultant +
- **Decision Resources Group Consulting**, Consulting Business Associate
- **DePuy Synthes**, Complaint Analyst
- **Galileo**, Backend Software Engineer +
- **GEP**, Business Consultant
- **Google, Inc.**, Software Engineer *
- **IQVIA**, Associate Consultant
- **Janssen**, Associate Scientist
- **Johnson & Johnson Family of Companies**, Research & Development Leadership and Development Program Engineer
- **Merck & Co., Inc.**, Data Scientist
- **Merck & Co., Inc.**, Operations Specialist
- **Meso Scale Diagnostics**, Research Associate
- **Navigant**, Consultant
- **The Boston Consulting Group**, Consulting Business Associate ○
- **Varian**, Program Analyst +

---

* Dual Degree Recipient
○ SEAS Bachelor's & Master's Degree
+ Continuing Previous Employment

**BIOTECHNOLOGY (MBIOTECH)**

**Full-Time Employment**

- **Ampel BioSolutions**
- **Axiom Healthcare Strategies**
- **Blueprint**
- **GlaxoSmithKline**, Associate Scientist (2)
- **Google, Inc.**, Software Developer *
- **IQVIA**, Analyst (Management Consulting)
- **Johnson & Johnson Family of Companies**, Quality Control Chemist +
- **Merck & Co., Inc.**, Senior Specialist Oncology Market Research and Analytics
- **MTS Health Partners**, Investment Banking Analyst +
- **Novo Nordisk**, Regulatory Affairs Graduate
- **The Wistar Institute**, Lab Technician +
- **The Wistar Institute**, Bioinformatics Technician
Weill Cornell Medical College, Bioinformatics Analyst +

CHEMICAL & BIOMOLECULAR ENGINEERING
Full-Time Employment

biyadi
Critical Path Institute (C-Path), Data Analyst
Johnson & Johnson Family of Companies, Associate Scientist
SABIC, Scientist

COMPUTER & INFORMATION SCIENCE
Full-Time Employment

Airbnb, Software Developer *
Airbnb, Software Engineer
Amazon, Software Developer
Amazon, Software Development Engineer (2)
Amazon, Software Engineer (2)
Amazon
Apple, Software Engineer
Aptible, Senior Software Engineer
Asana, Software Engineer +
BlackRock, Software Engineer
Bolt, Software Engineer
Chatham Financial, Software Engineer○
Cisco, Software Engineer
Citadel LLC, Software Engineer ○
Confluent, Backend Software Engineer ○
Facebook, Software Engineer
Facebook, Software Engineer ○
Google, Inc., Software Development Engineer +
Google, Inc., Software Engineer ○
Google, Inc., Software Engineer +
Google, Inc., Software Engineer (2)
Google, Inc. *
Google, Inc. (2)
Jane Street, Quantitative Trader (Finance) ○
Microsoft, Software Development Engineer
Microsoft, Software Engineer (2)
Microsoft
Momenta *
Nutanix, Technical Staff

* Dual Degree Recipient
○ SEAS Bachelor's & Master's Degree
+ Continuing Previous Employment
Nutanix  
NVIDIA Corporation,  
Oracle, Software Developer  
Oracle, Software Engineer  
PayPal, Software Developer 2 +  
Uber, Software Engineer  
VMware, Inc., Software Developer +  
Walmart Labs, Data Scientist

**COMPUTER & INFORMATION TECHNOLOGY (MCIT)**

**Full-Time Employment**

- Airbnb, Software Developer *
- Airbnb  
- Amazon, Software Developer  
- Amazon, Software Development Engineer * (2)  
- Amazon, Sr. Product Manager - Technical  
- Amazon *  
- Appfolio *  
- Bloomberg, Software Engineer  
- Capital One, Data Engineer  
- Center for Strategic and International Studies, RA  
- Deloitte  
- Dropbox, Software Engineer *  
- Facebook, Software Engineer *  
- Facebook  
- Galileo Processing, Strategy Manager +  
- Google, Inc., Software Developer *  
- Google, Inc., Software Engineer * (3)  
- Google, Inc., Software Engineer +  
- Google, Inc. * (2)  
- IBM  
- JRI America, Inc., Software Developer  
- Kepler Group  
- Mark Cuban Companies  
- Merck & Co., Inc., Technical Business Analyst  
- Microsoft, Software Engineer  
- Microsoft, Software Engineer *  
- Microsoft *  
- Microsoft
- Nutanix, Backend Software Engineer *
Oracle * (2)
PayPal, Senior Software Engineer +
Peloton
Pinterest, Product Analyst
University of Pennsylvania
VMware, Inc.
Waymo *
Zocdoc, Full-Stack Software Engineer

**COMPUTER GRAPHICS & GAME TECHNOLOGY**

**Full-Time Employment**

- Alibaba Group, Frontend Software Engineer +
- Apple (2)
- Capital One, Software Engineer ○
- DreamWorks Animation, Software Engineer
- Google, Inc., Software Engineer (2)
- Intel Corporation, Computer Graphics Software Engineer
- NVIDIA Corporation, Research & Development Engineer
- NVIDIA Corporation, Software Engineer
- Rockstar New England
- Sony Interactive Entertainment America (Sony PlayStation), Gameplay Programming
- Tencent Games
- Wombat Studio, Inc.
- Zenimax Online Studios, Associate Gameplay Programmer

**DATA SCIENCE**

**Full-Time Employment**

- Airbnb, Software Development Engineer +
- Amazon (2)
- Bridgewater Associates, Investment Engineer ○
- Facebook, Data Scientist ○
- Facebook, Data Scientist
- Google, Inc., Software Engineer
- Google, Inc., Software Engineer ○
- Google, Inc., Software Engineer +
- Mapbox, Geospatial Software Engineer
- Microsoft, Data Engineer
- Oracle, Software Engineer
- PayPal
- Vistar Media, Full Stack Developer
VMware, Inc.
Wayfair

**ELECTRICAL ENGINEERING**

**Full-Time Employment**

- **Amazon**, Software Development Engineer (2)
- **Amazon**, Software Engineer
- **Artech**
- **Axon**
- **China Mobile**, Computer Programmer
- **Dropbox**, Software Engineer +
- **Eaton**, Electrical Design Engineer
- **Facebook**
- **Google, Inc.** *
- **Huawei Technologies, Inc.** (4)
- **Hughes**, MTS-2
- **Hughes**, MTS-2 Hardware
- **Hughes**
- **Lockheed Martin**, Frontend Software Engineer +
- **MathWorks**, Engineer in Engineering Development Group
- **Micron Technology Inc.**, Circuit Design Engineer
- **Micron Technology Inc.**, Firmware Engineer
- **Micron Technology Inc.**, Product Development Engineer
- **Microsoft**, Program Manager ○
- **Microsoft**, Software Engineer
- **Northwestern University**, Research Technologist 2
- **Optimus Ride**
- **Oracle** *
- **pSemi**, Analog/Mixed Signal IC Designer
- **Qualcomm**, RF/A Verification
- **Qualcomm**, System Software
- **Quanergy Systems**, Firmware Engineer
- **Saucon Technologies**, Electrical Design Engineer
- **Vanguard**, Machine Learning Engineer
- **Xilinx**, Hardware Design Engineer

* Dual Degree Recipient
○ SEAS Bachelor's & Master's Degree
+ Continuing Previous Employment
EMBEDDED SYSTEMS

Full-Time Employment

- Alarm.com Inc.
- Celona, Software Engineer
- Facebook, Product Manager
- Facebook, Technical Program Manager
- Hewlett Packard Enterprise, Wireless Software Engineer
- LinkedIn Corporation, Software Engineer
- Microsoft

INTEGRATED PRODUCT DESIGN

Full-Time Employment

- 10XBeta, Product Design Engineer
- Capital One, Design Associate
- Jump Associates LLC, Innovation Strategist

INTEGRATED PRODUCT DESIGN (MSE)

Full-Time Employment

- Allevi, Inc., Mechanical Design Engineer
- Apple, Product Design Engineer
- Halma PLC

MATERIALS SCIENCE & ENGINEERING

Full-Time Employment

- BMW, Global Leader Development Program Trainee
- Facebook, Software Engineer *
- Foxcon
- Huatai Financial USA Inc., Consulting Business Associate
- Huawei Technologies, Inc., Engineer
- Microsoft, Software Engineer *
- PwC
- The Boeing Company, Systems, Materials and Process Engineer
- The Estee Lauder Companies, Inc., Associate Engineer ○
- University of Pennsylvania, Graduate Research Assistant +
- W. L. Gore & Associates, Inc., Reliability Engineer

* Dual Degree Recipient
○ SEAS Bachelor’s & Master’s Degree
+ Continuing Previous Employment
MECHANICAL ENGINEERING & APPLIED MECHANICS

Full-Time Employment

- ASML, Mechanical Analyst
- ASML, Mechatronic System Design Engineer
- Discovery Robotics, Software Engineer
- Foxconn, Product Design Engineer
- Hesai Photonics Technology Co. Ltd, Junior Engineer +
- Horizon Robotics
- Huawei Technologies, Inc., Engineer
- Lockheed Martin, Mechanical Engineer +
- Microsoft *
- Nokia Bell Labs, Software Developer
- PowerFlex Systems, Project Associate Intern ○
- Raytheon Company, Mechanical Engineer II
- University of Pennsylvania, Research Specialist
- University of Pennsylvania *

NANOTECHNOLOGY

Full-Time Employment

- Bank of China
- GMC
- Micron Technology Inc., Process Engineer +

ROBOTICS

Full-Time Employment

- Aerial Applications
- Amazon, Software Engineer
- Amazon, Software Engineer ○
- Amazon *
- Amazon Robotics, Software Engineer
- Apple, Software Engineer
- Aurora Flight Sciences, Machine Perception Engineer
- Aurora Flight Sciences
- Aurora Innovation, Software Engineer
- Berkshire Grey, Inc., Robotics Software Engineer ○
- Berkshire Grey, Inc.
- Bloomberg, Full-Stack Software Engineer
- Boston Dynamics, Robotics Engineer
- Brain Corporation, Software Scientist +
Bresslergroup, Mechanical Engineer
Dropbox, Software Engineer *
Exyn Technologies, Robotics Software Engineer
Formlabs, Quality Engineer ○
General Dynamics Mission Systems, Engineer
Goldman Sachs, Analyst
Google, Inc., Software Engineer *
Horizon Robotics
HypeVR, Computer Vision Engineer
Millennium Space Systems, Assembly, Test, and Launch Operations Engineer ○
MIT Lincoln Laboratory, Associate Staff
Momenta *
NVIDIA Corporation, Software Engineer ○
Oracle, Software Developer
Pony.ai, Software Engineer
pronto.ai, Mechanical Engineer
SpaceX, Test Automation Engineer ○
University of Pennsylvania *
Warburg Pincus, Analyst
Waymo *

SCIENTIFIC COMPUTING
Full-Time Employment
Lucid Motors, Senior Engineer

SYSTEMS ENGINEERING
Full-Time Employment
Amazon, Software Development Engineer
Amazon, Software Development Engineer *
Appfolio *
Baidu USA LLC, Machine Learning Engineer
Citibank
Dell
Ericsson
EY
Foray Design, Marketing and Operations Manager +
Garmin International, Aviation Systems Engineer
Google, Inc., Software Engineer *
Hongji Metal USA
Microsoft, Software Development Engineer
Nutanix, Backend Software Engineer *
One Financial Network, Intern
Oppenheimer & Co. Inc., Trader +
Oracle *
Pacific Planning Group, Inc., Supply Chain Manager
PwC
ThayerMahan, Machine Learning Engineer
Unionpay, Analyst
XDF
Xenon Health, Operation Associate

* Dual Degree Recipient
○ SEAS Bachelor's & Master's Degree
+ Continuing Previous Employment